BIOLOGIA
CENTRALI-AMERICANA.

INSECTA.

COLEOPTERA. Vol. VI. Part 2.

PHYTOPHAGA (part).

HISPIDÆ

BY

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With an Appendix by G. C. Champion, F.Z.S.

CASSIDIDÆ

BY

G. C. CHAMPION, F.Z.S.

1885–1894.

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INTRODUCTION.

This volume is devoted to two families of the Phytophagous Coleoptera, the Hispidæ and Cassididæ. The Hispidæ, with the exception of a short appendix, have been wholly dealt with by the late J. S. Baly, the Cassididæ by myself. Baly has already contributed some general remarks upon the Hispidæ, so that, as regards this family, it is necessary to add only some particulars as to the number of genera and species represented within our limits. Altogether, for the two families, 453 species are enumerated, the numbers being almost evenly apportioned—Hispidæ 226, Cassididæ 227. In the Hispidæ 169 new species and two new genera, and in the Cassididæ 55 new species and two new genera, have been described. The total number of species of Hispidæ for the whole world is given as 496 in the Munich Catalogue (1874), and for the Cassididæ 1795. This disproportion in the numbers of the two families, as compared with those for Central America, is, however, partly due to the fact that the Cassididæ have been exhaustively monographed by Boheman (1850–62), while no monograph of the Hispidæ has yet appeared. Nevertheless, Central America contains but a limited number of Cassididæ, as compared with Tropical South America: for example, *Mesomphalia* with 227 species (1874) has nineteen only within our limits; and many other South-American genera are represented by a very small number of species, as *Desmonota*, *Tauroma*, *Dolichotoma*, *Calaspidea*, and *Omoplata*, or are altogether absent, as *Calliaspis*, *Spilophora*, *Canistra*, and *Pœcilaspis*. Mexico and Guatemala, however, possess a number of peculiar species of Cassididæ, especially in the genera *Chelymorpha*, *Physonota*, *Coptocycla*, and *Ctenochira*, very few of which reach our northern frontier. Panama or Costa Rica appears to be the northern limit of such genera as *Delocrania*, *Desmonota*, *Calaspidea*, and *Omaspides*. America north of Mexico (Henshaw's Catalogue, 1885) has thirty-five species of Hispidæ and twenty species of Cassididæ (three of which are doubtful)—North America, for some, at present, inexplicable reason, possessing exceedingly few Cassididæ. *Cassida*, the only European genus of the family, and with upwards of 200 species in the Old World, is represented by very few species in North or Central America, it there being replaced by *Coptocycla*.

The majority of the Cassididæ are essentially tropical, and probably more than one half of the described species inhabit Tropical South America. Some genera, as *Physonota*, *Coptocycla*, *Ctenochira*, the eastern *Aspidomorpha*, &c., contain many species which are most brilliantly golden, silvery, or opalescent in life, the metallic colours fading immediately after death. These veritable living gems form a characteristic feature in tropical insect-life.

The Hispidæ are much more retired in their habits than the Cassididæ, and the species, with some few exceptions, are by no means so numerous in individuals, many of them occurring as single specimens on leaves in the forest. Some remarks upon their habits are given by Baly. A large number of undescribed species exist in collections.

G. C. C.

July 1894.

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ERRATA ET CORRIGENDA.

Page	Line	
19	34	*dele* (Tab. II. fig. 4.)
49	34	for *simillatus* read *similatus*.
87	24	for *Octoma* read *Octotoma*.
93	32	after *fulvopustulata* insert *lineaticollis*.
135	24	for *Alurna* read *Alurnus*.
177		The section "b. *Claws angularly dilated at the base*," should be transferred upwards so as to include **Cassida insculpta**.
178	24	for *zonata* read *zona*.
201	1	*for* Tab. IX. *read* Tab. XI.
222		Before CTENOCHIRA insert "b. *Anterior claws angularly dilated, and the intermediate and posterior claws pectinate, at the base*."

BIOLOGIA CENTRALI-AMERICANA.

ZOOLOGIA.

Class INSECTA.

Order COLEOPTERA.

Tribe PHYTOPHAGA (continued).

Fam. HISPIDÆ.

A large number of the Hispidæ contained in the present work are now described for the first time; but although so many of the species are new to science, all, with but two exceptions, belong to known generic groups; two new genera, *Euxema* and *Parachalepus*, are characterized in the following pages. The New-World genera *Cladispa*, *Octocladiscus*, *Melanispa*, *Hispoleptis*, *Metaxycera*, *Stethispa*, *Acentroptera*, and *Stenopodius** are as yet unrepresented in Central America; the last-named genus, however, recently established by Dr. Horn for the reception of a species from California and Arizona, will probably be found in Northern Mexico.

Little is known of the habits of the exotic species of the family; but Mr. Champion, who during his residence in Central America paid great attention to the group, tells me that the smooth flattened species (*Cephaloleia* and its allies) are usually found in the rolled-up unopened leaves of Musaceæ (*Heliconia*, spp.), the inner surfaces of the leaves being eroded or eaten through (often for five or six thicknesses of the rolled-up leaves) to a considerable extent; he took a long series of *Stenispa attenuata*, a smooth metallic insect, by sweeping undergrowth (Bambusaceæ), at a high elevation in the virgin forest; he also states that he captured, both in the forests and in the more open savanna country, the brightly coloured species of *Arescus* on the upper surfaces of leaves, basking in the full sunshine. Mr. Bates, who made a large collection of these interesting insects in the Amazon region, used to find numerous species of *Cephaloleia* hidden at the bases of bamboo-canes, lying between the leaves and the stem

As a rule, the New-World Hispidæ are more brilliantly coloured than those of the

* *Stenopodius flavidus*, Horn (Trans. Amer. Ent. Soc. 1883, p. 301, t. 9. f. 8), a remarkable species, possessing a similarly shaped thorax to *Euxema*; but judging from the structure of its antennæ, and from the slight description given of its labium, it should belong to the second section of the family, and be placed near *Uroplata*.

Old World. Many of the Central-American species are large and conspicuous, and being abundant in the various localities in which they occur, are doubtless (as Mr. Wallace states) protected from the attacks of birds and other enemies by the possession of some noxious smell or taste. The coloration and markings of the different species are (with some remarkable exceptions) constant, and show little tendency to variation; in some groups a uniform pattern runs, with but little change, through a series of specific forms, in many cases belonging to separate genera.

It will be seen that I have, as formerly, used the modifications in size and shape of the labium in the arrangement of the generic groups.

The labium is large and exposed, and is thus readily examined *in situ* by an ordinary microscope without risk of injury to the specimens; it is divided into two segments, the mentum and ligula.

I. The mentum, or basal segment, is connected by its lower edge with the margin of the skull, and is attached on either side to the maxilla; at first small, and forming a single piece with the ligula, it gradually increases in size until ultimately it forms the larger portion of the whole labium.

II. The ligula: this segment is placed in one division of the family at the apex, in the other on the dorsal surface of the mentum; it consists of two subsegments, the basilar and apical, which are separated from each other by well-defined sutural lines; the basilar portion, from the anterior surface of which spring the labial palpi, varies greatly in size and shape; in the earlier genera of the family it is large and prominent, but gradually dwindles away in exact ratio to the increase of the mentum, until at length (*Chondrina*) it, together with its appendages, the labial palpi, entirely disappears; the apical subsegment is corneous, and sometimes placed at the apex, sometimes on the dorsal surface of the preceding subsegment; in the latter case it is hidden from view.

I should not have thought it necessary to make these remarks had not the late Dr. Chapuis (Gen. Col. t. xi. p. 252) questioned the accuracy of my nomenclature of these parts, and in so doing fallen into a singular error, which, if not corrected, might tend to mislead future students of the group.

After having stated (*l. c.* p. 255) that the maxillæ are attached, one on either side, to the base of the mentum, he proceeds to say that there is often an additional segment, the *sous-menton*, placed between the true mentum and the margin of the head, referring to Cat. Hisp. tab. i. A a, and fig. 8 f as illustrating the part in question. He thus divides the labium into three segments:—1, a basal one, or *sous-menton*; 2, an inter-mediate, or *menton*; and 3, the *languette*, which, according to his statement, carries the labial palpi.

Had he, however, examined the parts in nature, for example, in *Alurnus*, to which figure he refers, he would have seen that the maxillæ are attached to the short transverse segment (his *sous-menton*), showing it, even according to his own views, to be the true mentum; had he carried his investigations further, and examined the second segment, which he terms the *menton*, he would have found that the labial palpi spring,

one on either side, from its anterior margin, proving it without doubt to be the basilar subsegment of the ligula, from which these organs always arise. His third segment, or *languette*, to which he has erroneously assigned them, never bears these organs; it answers to the apical subsegment of the ligula and is placed sometimes on the anterior, sometimes on the dorsal surface of the basilar subsegment.

The Hispidæ are separable into two primary sections, dependent on the relative positions of the mentum and ligula; in the first the ligula is placed at the apex of the mentum, in the second on its dorsal surface.

Section I. *Ligula placed at the apex of the mentum.*

Subsection 1. *Sutural line between the two segments obsolete.*

This subsection will include the new genus described below; the other genera belonging to it are Old-World forms.

EUXEMA.

Corpus suboblongatum, dorso modice depressum. *Caput* exsertum; *antennis* filiformibus, articulis cylindricis, primo oblongo, paullo incrassato, secundo quam ille paullo breviori, tertio elongato; *ligula* elongata, ad basin et ad apicem constricta, cum mento intime connexa, linea suturali inter segmentos obsoleta. *Thorax* transversus, margine antice antrorsum valde lobato. *Elytra* oblonga, punctato-striata. *Unguicali* divaricati.

One species from the State of Panama will constitute this genus.

1. **Euxema insignis.** (Tab. I. fig. 1.)

Subelongata, modice convexa, dorso depressa, metallico-cærulea, nitida; antennis nigris apice extremo piceis, tibiis tarsisque piceo-fulvis; thorace transverso-convexo; lateribus reflexis, a basi apicem versus oblique convergentibus; margine apicali medio in lobum obtusum producto, utrinque sinuato, nec non prope angulum lateralem tuberculo brevi setifero instructo; disco lævi, basi punctato, utrinque intra marginem excavato; elytris oblongis, regulariter punctato-striatis.

Mas. Abdominis segmento anale obtuse rotundato, leviter bisinuato.

Fem. Abdominis segmento anali rotundato, integro.

Long. 3 lin.

Hab. Panama, Volcan de Chiriqui 8000 feet (*Champion*).

Antennæ filiform, nearly half the length of the body, the third joint longer than the first and second united, black, the last three joints piceous. Thorax transversely convex; sides reflexed, obliquely converging from base to apex, more quickly rounded near the anterior angles, the latter obtuse; anterior margin deeply sinuate on either side and armed near the outer angle with a small setiferous tubercle, visible only under a strong lens; medial portion produced anteriorly into a strong subangulate lobe, which extends over and partially covers the head; upper surface excavated just within the outer margin, finely punctured at the base; disc smooth, impunctate. Scutellum pentangular, its apex acute. Elytra oblong, broader than the thorax; sides subparallel; apex broadly rounded, apical margin minutely serrulate; disc distinctly punctate-striate.

Subsection 2. *Sutural line between the mentum and ligula distinct.*

STENISPA.

Stenispa, Baly, Cat. Hispidæ, p. 13 (1858).

Three species, including one described below, are known from Central America, two from Mexico, and one from the State of Panama.

1. Stenispa sallæi. (Tab. I. fig. 2.)

Stenispa sallæi, Baly, Cat. Hispidæ, p. 164[1].

Mas. Abdominis segmento anali modice subangulato-emarginato; pygidio subtus fovea magna lævi sat profunde impresso.

Hab. MEXICO, Orizaba[1], Toxpam (type, *coll. Sallé*).

The female of this species is unknown to me.

2. Stenispa attenuata.

Stenispa attenuata, Baly, Cist. Ent. i. p. 185[1].

Mas. Abdominis segmento anali late angulato-emarginato; pygidio subtus fovea magna lævi impresso.

Fem. Abdominis segmento anali utrinque sinuato.

Hab. GUATEMALA, Chiacam (*Champion*); PANAMA[1] (type, *coll. Baly*), Volcan de Chiriqui alt. 8000 feet (*Champion*).

Larger and more brightly coloured than *S. sallæi*, the emargination of the anal segment of the abdomen in the male deeperand more distinctly angulate. Taken abundantly by sweeping undergrowth (Bambusaceæ) in the virgin forest at a high elevation.

3. Stenispa brevicornis.

Angustata, elongata, postice atttenuata, subcylindrica, nigro-cuprea, nitida; thorace quam lato paullo longiori, lateribus rectis; disco subremote punctato; elytris elongatis, parallelis, ad apicem attenuatis; regulariter punctato-striatis; antennis ad caput cum thorace æquilongis.

Mas. Abdominis segmento anali modice concavo; pygidio subtus fovea lævi magna impresso.

Fem. Abdominis segmento anali apice truncato.

Long. 2½ lin.

Hab. MEXICO (*coll. Deyrolle*).

Antennæ moderately robust, equal in length to the head and thorax. Front concave, rather closely punctured. Thorax rather longer than broad; sides straight and parallel, incurved at the extreme apex; hinder angles acute, anterior ones produced anteriorly into an acute tooth; disc transversely convex, faintly impressed transversely in front of the scutellum; surface minutely granulose, subremotely punctured. Elytra elongate, rather broader than the thorax; sides straight and parallel before their middle, thence gradually attenuated to the apex, the apical margin obsoletely serrulate; disc regularly punctate-striate, the puncturing nearly obsolete near the apex; interspaces minutely granulose.

This species is very closely allied to *S. attenuata*, but is separated by its smaller size, more robust and shorter antennæ, and (in the male) by the less deeply concave apex of the anal segment of the abdomen.

AMPLIPALPA.

Amplipalpa, v. Harold, Col. Heft. xiii. 1875, p. 185.
Œdiopalpa, Baly, Cat. Hispidæ, p. 16.

All the species of this genus have the joints of the palpi more or less compressed and dilated. One species only is known as yet from Central America, the rest occurring in various localities in South America from Colombia to Brazil.

1. **Amplipalpa guerini.** (Tab. I. fig. 3.)

Amplipalpa guerinii, Baly, loc. cit. p. 20[1].

Hab. Mexico, Putla, Playa Vicente (*Sallé*); Panama (*Boucard*), Bugaba (*Champion*), Matachin (*Thième*).—Colombia[1], Bogotá (*coll. Baly*, type); Upper Amazons (*Bates*).

This insect, although having an extensive range, and apparently not uncommon, appears to have been but very rarely met with by Mr. Champion, only two specimens, from the State of Panama, having been sent by him.

ALURNUS.

Alurnus, Fabricius, Ent. Syst. ii. p. 51, no. 54.

The species of *Alurnus* are all large and conspicuous insects, with the exception of *A. marginatus*, the coloration of each (within certain limits) tolerably constant; the range of the genus is from Mexico to Southern Brazil. Mr. Champion tells me that these insects are found upon the broad-leaved Musaceæ in the virgin forest of the low country.

1. **Alurnus ornatus.** (Tab. I. fig. 4.)

Alurnus ornatus, Baly, Trans. Ent. Soc. 1869, p. 87[1].

Hab. Nicaragua[1], Chontales (*Janson, Belt, Sallé*); Costa Rica (*Van Patten*).

2. **Alurnus salvini.** (Tab. I. fig. 5.)

Anguste oblongus, niger, nitidus; elytris flavis, utrinque apice maculisque tribus, 2–1 dispositis, nigris.
Var. A. Elytris flavis, apice externo nigro. (Tab. I. fig. 6.)
Long. 7–9 lin.

Hab. Costa Rica (*Sallé*); Panama, Chiriqui (*Ribbe*), Bugaba (*Champion*).

Vertex and front rugose-punctate, medial line impressed with a longitudinal groove. Antennæ half the length of the body, third joint twice the length of the basal two united. Thorax broader at the base than long; sides converging from base to apex, obtusely angulate; upper surface convex, finely punctured, the puncturing crowded on

the sides and at the base, remote on the medial disc. Elytra oblong, acutely rounded at the apex, convex, distinctly punctured, flavous; each with the apical fourth and three large patches, placed two obliquely below the base, one on the humeral callus, the other on the inner disc, and a third transverse, obliquely placed near the middle, black. Extreme apex of abdomen fulvous.

This insect differs from *A. ornatus* in the less coarsely punctured and entirely black thorax; in all other respects the two species closely agree. Its coloration is constant, so that I have considered it as distinct from the preceding insect.

Mr. Champion found this species upon the leaves of Musaceæ in the virgin forest of the low country.

3. **Alurnus cassideus.** (Tab. I. fig. 7.)

Alurnus cassideus, Westw. Ann. Nat. Hist. i. 1841, viii. p. 204[1].

Hab. Mexico (*coll. Melly*).—Upper Amazons[1], Pebas (*Bates*); Ecuador (*Buckley*).

The variety with black elytra from Ecuador, described by Mr. C. O. Waterhouse [Proc. Zool. Soc. 1881, p. 265], is much narrower than the typical form, and probably belongs to another species.

XANTHISPA.

Xanthispa, Baly, Cat. Hispidæ, p. 31.

Although the insect here described differs from the original diagnosis of *Xanthispa* (*l. c.* p. 32) in having the second joint of the antennæ short, it agrees so completely in the formation of the parts of the mouth with the typical species [*X. cimicoides*, Guérin, from Cayenne], that I do not hesitate to place it in the same genus.

1. **Xanthispa cæruleipennis.** (Tab. I. fig. 8.)

Ovata, subdepressa, rufo-testacea, nitida; antennis, articulo basali excepto, oculis scutelloque nigris; antennarum articulis basalibus duobus brevibus æqualibus, tertio elongato; thorace transverso, lævi, lateribus reflexis, a basi ad apicem convergentibus; elytris late ovatis, metallico-cæruleis, sat fortiter punctato-striatis, interspatiis ad latera convexis, hic illic costatis.

Long. 2¼ lin.

Hab. Nicaragua, Chontales (*Belt*). A single specimen.

Antennæ half the length of the body; two lower joints very short, equal, the basal one not thickened; third joint longer than the preceding two united. Thorax transverse; sides regularly rounded, and converging from base to apex; the anterior angles obtuse; apical margin concave; disc impunctate; the lateral margin reflexed. Scutellum pentangular. Elytra broadly ovate, rounded on the sides, more broadly rounded at the apex, outer margin minutely serrulate; disc slightly convex, flattened along the suture, broadly excavated laterally before the middle; rather strongly punctate-striate; striæ on

the outer disc sulcate, their interspaces thickened, here and there distinctly costate; outer limb reflexed, its surface concave, impunctate.

In coloration this species strongly resembles many species of *Homalispa*.

HOMALISPA.

Homalispa, Baly, Cat. Hispidæ, p. 38.

The present genus, apart from the structural differences of the mouth and antennæ, may be known from *Cephaloleia* by the broader and more ovate form. With the exception of the two described here the species inhabit the warmer parts of South America; about a dozen species are known.

1. **Homalispa variabilis.** (Tab. I. fig. 9.)

Anguste oblongo-ovata, depressa, nitida; subtus nigra, pectoris medio nigro-piceo, thorace inferiori capiteque flavis; supra flava, antennis, capitis vertice scutelloque nigris; thorace lævi, utrinque late excavato, vitta lata discoidali nigra; elytris oblongis, distincte punctato-striatis, dimidio postico vittaque late suturali nigris.
Var. A. Elytris flavis, vitta suturali pone medium obsoleta.
Long. 2½ lin.

Hab. PANAMA, Volcan de Chiriqui 3000 feet (*Champion*).

Lower face excavated, concave; vertex impressed with a few fine punctures. Antennæ more than half the length of the body, filiform, very slightly attenuated at the base and apex; joints cylindrical, the second half the length of the basal one, the third as long again as the second. Thorax twice as broad as long at the base; sides very oblique, quickly converging from base to apex, straight behind the middle, slightly rounded anteriorly, apical angle produced, subacute, the basal one very acute; basal margin broadly concave, emarginate on either side, its medial portion very obtusely rounded and slightly reflexed; upper surface smooth and shining, remotely impressed with very fine punctures, only visible under a strong lens; medial disc covered with a broad black vitta, which extends from base to apex; surface between this discoidal vitta and the lateral margin excavated, the lateral margin itself reflexed. Elytra rather broader than the base of the thorax; sides straight, nearly parallel, apical margin (conjointly) obtusely rounded; the outer border very finely serrulate, serratures distant on the sides, closer at the apex; each elytron with eleven rows of distinct punctures, the first row short; outer striæ subsulcate, their interspaces slightly convex.

This species, of which I have seen five specimens, all collected by Mr. Champion, is very variable in pattern, and in the extent of the black coloration of the elytra.

2. **Homalispa limbifera.**

Late ovata, depressa, flava, nitida; scutello antennisque nigris, abdomine pallide piceo; thorace lævi, ad latera sparse foveolato-punctato, disco plaga magna nigra, cuneiformi, a basi ad apicem producta instructo; elytris sat fortiter punctato-striatis; piceo-nigris, limbo exteriori late flavo.
Long. 2 lin.

Hab. GUATEMALA, Cubilguitz, San Juan in Vera Paz (*Champion*).

Head smooth; antennæ nearly three fourths the length of the body, filiform, first and second joints short, nearly equal in length. Thorax nearly twice as broad as long at the apex; sides broadly reflexed, straight, and obliquely converging from the base to beyond the middle, thence rounded and converging towards the apex; disc impunctate, sides at the base impressed with a few large foveolate punctures. Elytra much broader than the thorax, quadrate-ovate, flattened on the disc, transversely depressed below the base, outer limb broadly reflexed; coarsely punctate-striate, interspaces obsoletely wrinkled; outer limb impunctate.

"Found sitting on the leaves of Musaceæ in the virgin forest" (*Champion*).

3. Homalispa gracilis.

Elongato-ovata, rufo-testacea, nitida; antennis, basi excepta, oculis scutelloque nigris; thorace transverso, lateribus anguste reflexis, a basi ad ultra medium fere rectis, hinc ad apicem rotundato-angustatis; disco lævi, basi hic illic punctato; elytris viridi-æneis, oblongis, apice obtuse rotundatis, punctato-striatis.
Long. 2 lin.

Hab. Panama, Bugaba (*Champion*). A single specimen.

Antennæ half the length of the body, filiform, attenuated at base and apex; joints cylindrical, the basal one rufo-testaceous, the rest black. Thorax transversely convex; sides nearly straight, scarcely converging from the base to beyond the middle, thence rounded and converging to the apex; anterior angle produced, obtuse; apical margin truncate; disc smooth and shining, impunctate, impressed at the base with a few distinct punctures. Elytra oblong, regularly punctate-striate.

CEPHALOLEIA.

Cephaloleia, Blanchard, Hist. des Insectes, ii. p. 182; Baly, Cat. Hispidæ, p. 39.

With the exception of six, all the species described below are new to science; many of these are closely allied to Colombian forms, but are separated by good structural characters. *Cephaloleia* is one of the few genera in the family in which important characters can be drawn in both sexes from the emargination of the anal segments of the abdomen.

Mr. Champion informs me that the Central-American species of this genus are, with one or two exceptions, found in the rolled-up unopened leaves of Musaceæ in damp places in the forests, often in company with species of Carabidæ (*Calophæna*). In fine weather these insects are to be seen sunning themselves on the leaves; many of the species are gregarious; the young tender juicy leaves of these plants form their principal food.

1. Cephaloleia gratiosa. (Tab. I. fig. 10.)

Cephaloleia gratiosa, Baly, Cat. Hispidæ, p. 40[1].
Var. A. Elytris nigris.
Var. B. Elytris nigris, apice rufo-fulvis.

Hab. MEXICO[1], Cordova, Toxpam (type and vars. A and B) (*coll. Sallé*), Juquila (*Höge*, var. A); GUATEMALA, Cerro Zunil 4000 feet (*Champion*).

The metropolis of the present species appears to be Mexico, a single specimen only having been sent from Guatemala by Mr. Champion.

2. **Cephaloleia championi.** (Tab. I. fig. 11.)

Elongata, parallela, dorso subdepressa, flava, nitida; oculis, antennis extrorsum, articulo ultimo apice excepto, scutelloque nigris; thorace quam longo vix latiori; lateribus rectis, ad apicem abrupte convergentibus, angulo antico acuto; dorso sparse punctato, lateribus anguste nigro marginatis; scutello elongato, acuto; elytris tenuiter punctato-striatis, limbo exteriori vittaque lata suturali, hac vix pone medium ampliata, deinde ad apicem abrupte angustata, nigris.

Mas. Antennarum articulis basalibus quatuor compressis, primo subclavato, sequentibus tribus trigonatis; abdominis segmento anali leviter sinuato.

Fem. Antennarum articulis cylindricis; abdominis segmento anali obtuso.

Long. 4 lin.

Hab. PANAMA, Bugaba (*Champion*).

Head smooth and shining, finely and remotely punctured. Antennæ less than half the length of the body; basal joint thickened, twice the length of the second; the second, third, and fourth joints equal in length, compressed and trigonate in the male, the basal joint in the same sex subclavate; in the female the second to the fourth joints are cylindrical, the third being rather longer than either of the preceding; the two to four lower joints, together with the apex of the eleventh, flavous. Thorax scarcely broader than long; sides straight and nearly parallel, rounded and converging at the extreme apex; anterior angles acute; upper surface very sparingly punctured; extreme lateral margin narrowly edged with black or dark piceous. Scutellum pentagonal, nearly twice as long as broad, its apex very acute. Elytra broader than the thorax, parallel, their apices rounded, conjointly sinuate at the sutural angle, the latter armed with a small acute tooth; upper surface smooth, finely punctate-striate.

Nearly allied to *C. whitei*, distinguished by the narrower and more parallel form, together with the straighter sides and acute anterior angles of the thorax, the latter in *C. whitei* being obtusely rounded; the last segment of the abdomen in the male of the latter species (the only sex known to me) is more deeply sinuate.

Taken in plenty by Mr. Champion in the rolled-up unopened leaves of Musaceæ in the virgin forest of the "tierra caliente."

3. **Cephaloleia ornata.** (Tab. I. fig. 12.)

Elongata, dorso subdepressa, nitida, subtus nigro-picea; thorace abdomineque fulvis, femoribus, apice exceptis, flavis; supra nigra, facie inferiori piceo-fulva; thorace fulvo, basi plagaque apicali trigonata, nigro-piceis; elytris tenuiter punctato-striatis, utrinque vitta humerali, a basi fere ad medium extensa, postice ampliata, fasciaque lata subapicali, flavis.

Long. 3¾ lin.

Hab. NICARAGUA, Chontales (*Belt*). A single specimen.

Head sparingly punctured. Basal joint of the antennæ compressed, subclavate; the second scarcely more than half the length of the first (the remaining joints in the single specimen before me broken off). Thorax slightly broader than long; sides straight and parallel, incurved at the apex; apical angles rounded, distinctly produced; hinder angles slightly produced, acute; disc smooth and shining, sparingly impressed on either side with large, round punctures. Scutellum trigonate, slightly longer than broad. Elytra parallel, obtusely truncate at the apex, flattened along the suture, finely punctate-striate, the striæ on the inner side obsoletely sulcate.

4. **Cephaloleia nigropicta.** (Tab. I. fig. 13.)

Anguste elongata, pallide flava, nitida; antennis, basi exceptis, scutelloque nigris; thorace subquadrato, lævi, fere impunctato, plaga magna pentagonata, ab apice fere ad basin extensa, nigra; elytris sat fortiter punctato-striatis, punctis pallide piceis; utrisque plaga magna humerali fasciaque vix pone medium, communi, nigris.

Mas. Abdominis segmento anali apice leviter concavo.

Fem. Abdominis segmento anali obtuso, leviter bisinuato.

Long. 2⅝ lin.

Hab. PANAMA, Volcan de Chiriqui 2500 to 6000 feet (*Champion*).

Head smooth and shining, vertex and front impressed with a longitudinal groove. Antennæ filiform, less than half the body in length, the two lower joints fulvous, more or less stained with piceous, the rest black. Thorax subquadrate, scarcely broader than long; sides nearly straight and parallel; the anterior angles not produced, obtuse; disc smooth and shining, impunctate; a large pentagonal discoidal patch attached by its base to the apical margin, its apex extending backwards nearly to the base, black. Scutellum longer than broad. Elytra broader than the thorax; sides parallel, very slightly dilated near the apex, the latter obtusely rounded; upper surface moderately convex, slightly flattened anteriorly along the suture, regularly and rather strongly punctate-striate, the striæ faintly sulcate.

5. **Cephaloleia distincta.** (Tab. I. fig. 15.)

Elongata, fulva, nitida; pectore abdomineque nigro-piceis, pedibus (femoribus basi coxisque exceptis) antennisque nigris; thorace sparse punctato; elytris parallelis, apice obtuse rotundatis; sat fortiter punctato-striatis, punctis piceis.

Mas. Antennarum articulis basalibus quatuor compressis; abdominis segmento anali late concavo-emarginato.

Fem. Antennarum articulis cylindricis; abdominis segmento anali leviter bisinuato.

Long. 3½ lin.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet, Bugaba (*Champion*).

Head nitidous, very finely and sparingly punctured; face between the antennæ with a strongly raised longitudinal ridge. Antennæ less than half the length of the body, joints from the second to the apical one cylindrical in the female, the basal one thickened, obliquely compressed at the base; four lower joints in the male compressed and dilated, the basal one thickened and subclavate, the following three joints trigonate; the second short, broader than long; the third and fourth less dilated, each longer than

the second. Thorax about one fifth broader than long; sides straight and parallel, converging at the apex; anterior margin sinuate on either side just within the apical angle, the latter scarcely produced, rounded; disc nitidous, sparingly impressed with large round punctures, the puncturing rather more crowded on the sides. Scutellum much longer than broad, pentangular, its apex very acute. Elytra moderately convex, rather strongly punctate-striate, the punctures piceous; the suture also narrowly edged with piceous.

6. **Cephaloleia antennata.**

Sat elongata, fulva, nitida; antennis extrorsum nigris; thorace transverso, lateribus rectis, ad apicem convergentibus, angulis anticis antrorsum productis, obtusis, disco sparse tenuiter punctato, medio fere impunctato; elytris oblongo-elongatis, parallelis, distincte punctato-striatis.

Mas. Antennarum articulis basalibus quatuor compressis, singulis angulo antico-interno in dentum acutum antrorsum producto; abdominis segmento anali concavo-emarginato.

Long. 3 lin.

Hab. PANAMA, Volcan de Chiriqui 2000 to 3000 feet, David (*Champion*).

Four lower joints of antennæ compressed, the inner and anterior angle of each produced into an acute tooth; basal joint clavate, the following three short, equal in length, the second and third trigonate; four lower joints fulvous, the rest black. Thorax broader than long; sides straight and parallel, converging at the apex; the anterior angles produced, obtuse; disc finely and sparingly punctured on the sides, the medial space nearly impunctate. Elytra broader than the thorax, oblong-elongate, parallel, distinctly and regularly punctate-striate.

Separated from *C. corallina*, Er., by its smaller size, less elongate form, and by the shorter second and third joints of the antennæ.

7. **Cephaloleia erichsoni.** (Tab. I. fig. 14.)

Cephaloleia erichsonii, Baly, Cat. Hispidæ, p. 43[1].

Hab. PANAMA, Bugaba (*Champion*).—COLOMBIA[1] (*coll. Baly*, type).

The specimens from the State of Panama are rather darker in colour than the type.

8. **Cephaloleia placida.**

Elongata, parallela, fulva, nitida; antennis, basi exceptis, nigris; thorace subquadrato, lævi, remote punctato; elytris parallelis, tenuiter punctato-striatis.

Mas. Abdominis segmento anali sat profunde concavo-emarginato; antennarum articulo tertio cylindrico.

Fem. Abdominis segmento anali obtuse rotundato, medio truncato.

Long. 3 lin.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Antennæ half the length of the body; joints cylindrical; the second one shorter than the first, the latter compressed. Thorax subquadrate; sides straight and parallel; anterior angle moderately produced, its apex obtuse; anterior margin concave; disc

smooth and shining, very finely and remotely punctured. Elytra broader than the thorax, obtusely rounded at the apex; disc smooth and shining, very finely punctate-striate.

Very similar in form to *C. erichsoni*, somewhat smaller, the third joint of the antennæ in the male cylindrical.

9. **Cephaloleia sallæi.** (Tab. I. fig. 16.)

Cephaloleia sallæi, Baly, Cat. Hispidæ, p. 45[1].

Hab. Mexico, Santecomapam, Cordova (*coll. Sallé*); Guatemala, Chacoj, Panima in Vera Paz (*Champion*).—Colombia, Bogotá[1] (*coll. Brit. Mus. and Baly*).

The specimens from Guatemala and Mexico differ from the Colombian ones in having the pygidium in the female entire or only very faintly sinuate on one or the other side; in the male, on the contrary, the same segment is sometimes obsoletely sinuate in the medial line; the transverse impression at the base of the thorax is also occasionally absent, and the antennæ are sometimes entirely black; in all other respects they agree with the typical form.

10. **Cephaloleia puncticollis.**

Sat elongata, fulva, nitida; antennis nigris; thorace transverso, lateribus a basi fere ad apicem rectis, parallelis; disco sat fortiter punctato; elytris subelongatis, fere parallelis, apice obtuse rotundatis, regulariter punctato-striatis, punctis piceo tinctis.

Mas. Abdominis segmento anali concavo-emarginato, medio sinuato.

Fem. Abdominis segmento anali late sed leviter emarginato.

Var. A. Antennis basi fulvis.

Long. 2¾ lin.

Hab. Nicaragua, Chontales (*Belt*); Costa Rica, Cache (*Rogers*); Panama, Volcan de Chiriqui 2500 to 4000 feet, Bugaba (*Champion*).

Antennæ filiform, rather more than half the length of the body, black; joints cylindrical, the basal one slightly thickened, very slightly compressed, longer than the second, the latter oblong. Vertex and front distinctly punctured. Thorax one third broader than long; sides straight and parallel from the base nearly to the apex, then rounded and converging to the anterior angle, the latter obtuse; hinder angle slightly produced, very acute; disc transversely convex, impressed (but not very closely) with large round punctures. Elytra rather broader than the thorax, parallel, very slightly dilated below the middle, convex, flattened along the suture, rather strongly and regularly punctate-striate, the punctures more or less stained with piceous.

Very closely allied to *C. proxima*, and possibly only a local form of that species, separated by the narrow thorax and by the rather more parallel form.

11. **Cephaloleia congener.**

Sat elongata, sordide rufo-fulva, nitida; antennis cylindricis, nigris; thorace transverso, lateribus a basi ad ultra medium rectis, leviter divergentibus, hinc ad apicem rotundato-angustatis; disco remote punctato; elytris anguste oblongo-ovatis, regulariter punctato-striatis.

Mas. Abdominis segmento anali late emarginato, fundo leviter concavo.
Fem. Abdominis segmento anali late emarginato, fundo leviter bisinuatis.
Long. 3–3½ lin.

Hab. PANAMA, Bugaba (*Champion*).

Vertex and front finely and remotely punctured. Antennæ rather less than half the length of the body, filiform; joints cylindrical, black, the basal one obscure rufo-piceous. Thorax transverse; sides straight and slightly diverging from the base to beyond the middle, then rounded and converging to the apex, apical angle obtuse; remotely and finely punctured, a narrow longitudinal space on the middle free from punctures. Scutellum scarcely longer than broad, pentangular. Elytra narrowly oblong-ovate, convex, sinuate on the sides before the middle, finely punctate-striate.

Nearly allied to *C. puncticollis*, separated by the diverging sides, and the more remotely punctured disc, of the thorax.

12. **Cephaloleia perplexa.**

Elongata, parallela, fulva, nitida; antennis nigris; thorace lateribus rectis, ad apicem convergentibus, angulo antico antrorsum vix producto, obtuso, angulo postico acuto; disco sparse punctato, medio fere impunctato; elytris oblongo-elongatis, apice obtuse rotundatis, modice convexis, distincte punctato-striatis.
Mas. Antennis filiformibus, articulo tertio cylindrico; abdominis segmento anali concavo-emarginato, medio sinuato.
Fem. Antennis filiformibus, articulo basali fulvo, tertio compresso, elongato-trigonato; abdominis segmento anali bisinuato, medio paullo producto.
Long. 2¾–3 lin.

Hab. GUATEMALA, Senahu in Vera Paz (*Champion*).

Antennæ rather more than half the length of the body; joints cylindrical, the third (in the female) compressed and elongate-trigonate. Thorax rather broader than long; sides straight, rounded at the extreme apex, parallel in the male, slightly converging in the female; the anterior angle slightly produced, obtuse; distinctly but not closely punctured; a longitudinal space on the middle nearly free from punctures. Elytra narrowly oblong, shorter in the male, distinctly punctate-striate.

13. **Cephaloleia dilaticollis.**

Cephaloleia dilaticollis *, Baly, Cat. Hispidæ, p. 46, t. 5. fig. 5[1].

Hab. GUATEMALA, Dueñas (*Salvin*); PANAMA, Bugaba 800 to 1500 feet (*Champion*).—COLOMBIA, Bogotá [1] (*coll. Baly*, type).

14. **Cephaloleia lata.** (Tab. I. fig. 17.)

Breviter subquadrato-ovata, modice convexa, fulva, nitida; antennis extrorsum nigris; thorace transverso, lateribus anguste reflexis; disco lævi, sparse hic illic punctis magnis impresso; elytris regulariter punctato-striatis, pallide castaneis, limbo externo anguste flavo.
Mas. Abdominis segmento anali concavo-emarginato.

* This insect is figured in the Catalogue as *C. quadraticollis*.

Fem. Abdominis segmento anali late sed leviter transversim emarginato.
Var. A. Thorace cum elytris concolori, limbo laterali anguste flavo.
Long. 2–2½ lin.

Hab. Panama, Bugaba, Volcan de Chiriqui 4000 to 6000 feet (*Champion*).

Antennæ half the length of the body, filiform, slightly attenuated at base and apex; joints cylindrical, two lower ones short, equal, the basal one very slightly thickened, third joint nearly equal in length to the preceding two united; five outer ones black, the rest fulvous; in some specimens the antennæ are almost entirely black, the two or three lower joints being alone fulvous. Thorax twice as broad as long; sides narrowly reflexed, straight and nearly parallel from the base to below the middle, thence rounded and converging to the apex; apical angle anteriorly produced, obtuse; disc nitidous, very sparingly impressed with deep punctures. Elytra broader than the thorax, subquadrate, obtusely rounded at the apex, conjointly emarginate at the sutural angle; upper surface moderately convex, obsoletely gibbous behind the scutellum, regularly punctate-striate, the punctures sometimes piceous.

I have placed this species in the present genus with some doubt; it has the labium formed as in *Cephaloleia*, but with the broad form and the short basal joint to the antennæ as in *Homalispa*.

15. **Cephaloleia pretiosa.** (Tab. I. fig. 18.)

Cephaloleia pretiosa, Baly, Cat. Hispidæ, p. 50[1].

Hab. Panama (*Boucard*), Matachin (*Thième*).—Colombia[1] (*coll. Baly*, type).

16. **Cephaloleia suturalis.** (Tab. I. fig. 19.)

Sat elongata, nigro-picea; antennis, basi exceptis, nigris, pedibus abdomineque sordide fulvis; thorace fortiter punctato; elytris fortiter punctato-striatis, flavis, sutura nigro-picea.
Mas. Abdominis segmento anali late emarginato, medio sinuato.
Fem. Abdominis segmento anali late sed leviter transversim emarginato.
Var. A. Thorace sordide flavo, vitta discoidali nigro-picea.
Long. 2⅓ lin.

Hab. Guatemala, Sinanja, Sabo, and Cubilguitz (*Champion*); Nicaragua, Chontales (*Belt*).

Head closely punctured; face between the antennæ with an elevated longitudinal ridge. Antennæ with the basal joint subclavate, the second oblong-ovate, two thirds the length of the first, the third about equal in length to the basal one. Thorax about one fifth broader than long; sides straight and parallel, rounded and converging at the extreme apex, the anterior angle produced, obtuse; upper surface transversely convex, smooth and shining, deeply impressed with large round punctures; a narrow medial line on the disc nearly free from punctures. Elytra subelongate, moderately convex; sides parallel, apices (conjointly) obtusely rounded; upper surface strongly punctate-striate; flavous; a sutural vitta, gradually narrowed towards the apex, nigro-piceous.

17. **Cephaloleia discoidalis.**

Subelongata, picea, nitida; pedibus fulvis; scutello, capite thoraceque nigris, hoc sat crebre punctato, apice anguste piceo-fulvo; elytris oblongis, sat fortiter punctato-striatis, sordide fulvis; vitta suturali, postice angustata, pone medium fere obsoleta, alteraque discoidali, brevi, pone medium posita, nigris, instructis.

Fem. Abdominis segmento anali late sed leviter transversim emarginato.

Long. 2½ lin.

Hab. MEXICO, Orizaba (*Sallé*). A single specimen.

Head very closely punctured. Basal joint of the antennæ longer than the second, slightly thickened, second and third nearly equal in length (*the rest wanting*). Thorax slightly broader than long; sides straight and parallel, anterior angle produced into an obtuse tooth; disc transversely convex, more strongly but less closely punctured than the head. Elytra broader than the thorax, oblong; sides subparallel, their apices obtusely rounded; above moderately convex, slightly excavated and sinuate on the side below the humeral callus; surface rather strongly punctate-striate; the sutural vitta, commencing at the basal margin and dilated just below the scutellum, is from thence gradually narrowed to a short distance below the middle of the elytron, where it terminates in a narrow line which runs along the suture nearly to the apex.

18. **Cephaloleia dorsalis.**

Anguste oblongo-ovata, nitida, subtus piceo et nigro variegata; abdomine pedibusque flavis, tarsis piceo tinctis; supra nigra, thorace subcylindrico, subcrebre punctato; lateribus rectis, ad apicem anguste piceis; elytris oblongis, apice rotundatis, modice convexis, sat fortiter punctato-striatis, vitta suturali subcuneiformi a basi ad medium extensa, basi angustata, nigra, ornatis.

Mas. Abdominis segmento anali apice late emarginato, medio sinuato.

Fem. Abdominis segmento anali apice truncato utrinque sinuato.

Long. 2–2½ lin.

Hab. PANAMA, Bugaba 800 to 1500 feet (*Champion*).

Front between the eyes closely punctured. Antennæ filiform, more than half the length of the body. Thorax slightly broader than long; sides straight and parallel; disc subcylindrical, rather strongly punctured. Elytra oblong, moderately convex, rather strongly punctate-striate.

19. **Cephaloleia histrionica.** (Tab. I. fig. 21.)

Oblongo-elongata, nigra, nitida; pedibus flavis, coxis, genubus tarsisque nigris; thorace quam longo vix latiori fortiter punctato, flavo, limbo anguste plagaque basali magna nigris; elytris punctato-striatis, flavis, basi rufo-testaceis, vittis tribus, duabus externis basi abbreviatis, nigris, instructis.

Mas. Abdominis segmento anali late transversim emarginato, medio leviter sinuato.

Fem. Abdominis segmento anali leviter emarginato.

Long. 2–2⅔ lin.

Hab. PANAMA, Bugaba, Volcan de Chiriqui 2000 to 4000 feet (*Champion*).

Front clothed with adpressed fulvous hairs. Antennæ filiform, first and third joints nearly equal in length, the second rather shorter. Thorax rather broader than long;

sides straight and parallel, slightly converging at the apex, anterior angle subacute, the hinder one acute; anterior margin sinuate on either side; surface impressed with round punctures, which are irregularly scattered over the hinder two thirds of the disc, but are nearly obsolete on the sides and at the apex; flavous; a large subquadrate patch, attached to the basal margin and covering the posterior two thirds of the disc, but not extending to the sides, black; outer limb also narrowly edged with black. Elytra narrowly oblong, parallel, obtusely rounded at the apex, regularly punctate-striate; flavous, a basal patch rufo-testaceous; an entire sutural vitta, broad at its base, but gradually narrowed towards its apex, together with another on each elytron, discoidal, abbreviated at the base but extending downwards nearly to the apex, where it incurves and often joins the sutural vitta, black.

20. **Cephaloleia trivittata.**

Anguste elongata, parallela, modice convexa, nitida; subtus picea, pedibus flavis, piceo-tinctis; supra nigra; thorace subquadrato, subcylindrico, profunde punctato, lateribus rectis, parallelis; elytris fortiter punctato-striatis, flavis, nigro trivittatis, vittis apice confluentibus, duabus externis basi abbreviatis.

Mas. Abdominis segmento anali late emarginato, medio sinuato.

Fem. Abdominis segmento anali late emarginato.

Long. 2 lin.

Hab. GUATEMALA, El Tumbador 2500 feet (*Champion*); PANAMA, Bugaba, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Head closely punctured. Antennæ filiform, joints cylindrical, the first slightly thickened, rather longer than the second, about equal in length to the third. Thorax subquadrate; sides straight and parallel, scarcely converging at the extreme apex, anterior angle produced, subacute; disc deeply but not very closely impressed with large round punctures. Scutellum rather longer than broad. Elytra much broader than the thorax, elongate, parallel; apices rounded, slightly sinuate conjointly at the sutural angle; above moderately convex, slightly flattened on the anterior disc; strongly punctate-striate; flavous; with three broad black vittæ, the medial one of which is common, entire, slightly dilated below the scutellum and contracted just before reaching the sutural angle; the others, one on each elytron, commence below the humeral callus, and, after extending the whole length of the disc, incurve to unite with the sutural line.

Much narrower and more elongate than the preceding species.

21. **Cephaloleia semivittata.**

Elongata, nitida, subtus picea; pedibus abdomineque fulvis, hoc piceo tincto; pleuris fortiter punctatis; supra nigra; thorace subquadrato, lateribus rectis; subcrebre fortiter punctato; elytris fortiter punctato-striatis, fulvis, vitta suturali communi integra, pone scutellum paullo dilatata, alteraque discoidali a medio ad apicem extensa, apice cum linea suturali connexa, nigris.

Mas. Abdominis segmento anali late transversim emarginato, medio sinuato.

Fem. Abdominis segmento anali apice utrinque sinuato.

Long. 2 lin.

Hab. PANAMA, Bugaba 800 to 1500 feet (*Champion*).

Front finely but not closely punctured. Antennæ black or nigro-piceous, filiform, moderately robust; first and third joints equal in length, the second rather shorter. Thorax quadrate; sides straight and parallel, anterior angle distinctly produced, obtuse; upper surface strongly punctured, a longitudinal space on the middle disc impunctate; apical margin, together with the anterior angles, narrowly piceous. Elytra narrowly oblong, flattened along the suture, rather strongly punctate-striate, the punctures stained with piceous. The piceous coloration of the under surface varies greatly in extent; in some specimens it is confined to the sides of the body, in others it extends over the whole breast and prothorax.

This species agrees in general form with *C. histrionica*, but differs in coloration; the antennæ are more robust, and the emargination of the anal segment of the abdomen in the female is different.

22. **Cephaloleia elegantula.** (Tab. I. fig. 22.)

Elongata, subdepressa, piceo-flava, nitida; supra nigra; antennarum articulo basali piceo; thorace profunde punctato, lateribus late flavis; elytris elongatis, sat fortiter punctato-striatis, limbo laterali flavo.

Mas. Pygidii apice obtuso; abdominis segmento anali angulato-emarginato.

Fem. Pygidii apice angulato; abdominis segmento anali bisinuato, medio paullo producto.

Long. 1½–2 lin.

Hab. PANAMA, Bugaba, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).

Head finely and subremotely punctured. Antennæ two thirds the length of the body; joints cylindrical, the first distinctly shorter than the second, the third somewhat longer, the third, fourth, and fifth nearly equal in length. Thorax broader than long; sides straight and parallel from the base to beyond the middle, thence obliquely rounded and converging to the apex; anterior angle moderately produced, obtuse; hinder angle acute; upper surface impressed with large round punctures, which are crowded on the sides, more distant on the disc, the medial line almost impunctate. Elytra broader than the thorax, subelongate, parallel anteriorly, slightly converging behind the middle, obtusely rounded at the apex, obsoletely angulate-emarginate at the suture in the female; moderately convex, slightly flattened along the suture, rather strongly punctate-striate, the punctures less strongly impressed behind the middle in the male.

23. **Cephaloleia lateralis.**

Anguste oblongo-ovalis, subdepressa, nitida; subtus pallide picea, pectore nigro-tincto, pedibus flavis; supra flava, scutello antennisque nigris, harum articulis primo et ultimo piceis; thorace transverso, sat fortiter punctato, vitta lata discoidali nigro-picea; elytris oblongis, apice rotundatis, margine apicali obsolete serrulato, nigro-piceis, limbo externo flavo.

Mas. Abdominis segmento anali sinuato.

Long. 2 lin.

Hab. GUATEMALA, Panima in Vera Paz (*Champion*). A single example.

Head sparingly but distinctly punctured. Antennæ filiform, more than half the length

of the body; joints cylindrical, the first short, about three fourths the length of the second, the third nearly as long as the preceding two united, fourth and fifth equal, each three fourths the length of the third. Thorax nearly one third broader than long; sides straight and parallel, abruptly rounded at the apex, hinder angle very acute, the anterior one moderately produced, obtuse; upper surface coarsely but distantly punctured on the sides, the punctures closer and finer on the disc; an ill-defined longitudinal space in the medial line nearly free from punctures; medial disc covered with a broad wedge-shaped nigro-piceous vitta, which extends from the basal to the apical margin. Elytra broader than the thorax, oblong; lateral margin dilated, slightly reflexed; apical margin rounded, conjointly subangulate, emarginate at the sutural angle; upper surface convex on the sides, slightly flattened along the suture, distinctly and regularly punctate-striate, the puncturing nearly obsolete on the hinder disc, but again stronger and more distinct near the apex.

24. **Cephaloleia chevrolati.**

Cephaloleia chevrolati, Baly, Cat. Hispidæ, p. 61 [1].

Hab. Mexico, Yucatan [1] (*coll. Chevrolat*).

This species, described from a single specimen in M. Chevrolat's collection, now not accessible to me, is closely allied to *C. lateralis* and *C. elegantula*.

25. **Cephaloleia instabilis.** (Tab. I. figg. 23, 24.)

Elongata; subtus nigra, nitida, thorace fulvo, femoribus tibiisque anticis subtus pallide piceis; supra pallide fulvo-picea, antennis verticisque plagis duabus magnis, superficiem fere amplectentibus, nigris; thorace subquadrato, utrinque ad latus excavato, sparse foveolato-punctato, disco lævi, vitta nigro-picea ornato; scutello piceo; elytris opacis, dorso deplanatis, leviter sed distincte punctato-striatis, nigris, ante medium fulvo-piceis.

Mas. Abdominis segmento anali apice obtuso, medio leviter sinuato.

Fem. Abdominis segmento anali apice obuse truncato.

Var. A. Elytris nigris, utrinque vitta lata humerali, a basi ad medium extensa fulva.

Var. B. Elytris fulvis, pone medium nigris.

Var. C. Elytris totis fulvis.

Long. 3½–4 lin.

Hab. Guatemala, Chiacam, Cahabon, Lanquin, and Cubilguitz in Vera Paz (*Champion*); Panama, Bugaba 800 to 1500 feet (*Champion*).

Vertex and front coarsely punctured, black, a narrow medial line alone piceo-fulvous. Antennæ entirely black; four lower joints compressed, the basal one clavate, the following three more or less trigonate and nearly equal in length in the male, third joint rather longer in the female. Thorax scarcely broader than long; sides straight and parallel, anterior angle scarcely produced, obtuse, the hinder one acute; upper surface broadly excavated on the sides, the excavation extending the whole length of the thorax, sparingly impressed with round irregular punctures; disc nearly impunctate, medial

line with a broad nigro-piceous vitta, which extends nearly from the base to the apex. Scutellum much longer than broad, pentangular, its apex very acute. Elytra broader than the thorax, parallel, flattened on the back, abruptly deflexed and concavely excavated on the sides, the junction of the two surfaces forming a distinct ridge; minutely granulose, subopaque, finely but distinctly punctate-striate. The black coloration is very variable in extent, in some specimens reaching upwards along the suture nearly to its base, in others being entirely obsolete.

26. Cephaloleia intermedia.

Elongata, parallela, dorso depressa, nitida; subtus nigra, thorace, coxis anticis quatuor femorumque dimidio basali fulvis; supra rufo-fulva, capitis vertice, plagis duabus inter oculos antennisque nigris; thorace quam lato vix longiori; lateribus rectis, parallelis, angulo antico fere rectangulari; disco utrinque late excavato, fortiter et irregulariter punctato, medio fere impunctato, vitta lata interdum postice angustata nigra ornato; elytris parallelis, apice rotundatis, dorso sat deplanatis, tenuiter punctato-striatis, opacis, nigris, utrisque plaga lata marginali a basi ad medium extensa rufo-fulva ornatis.

Mas. Antennis subfiliformibus, apicem versus paullo incrassatis, articulo tertio trigonato, quam secundus fere duplo longiori; pygidii apice obtuse rotundato; abdominis segmento anali late sed leviter emarginato.

Fem. Antennis ut in ♂; pygidii apice obtuse angulato; abdominis segmento anali truncato.

Var. A. Elytris totis rufo-fulvis.

Long. 3½–4 lin.

Hab. PANAMA, Bugaba 800 to 1500 feet (*Champion*).

Front concave between the eyes; a granulose space on either side, together with the middle of the neck, black. Antennæ rather more than half the length of the body, robust; joints slightly compressed, the basal joint subclavate, the second short, subtrigonate, the third nearly twice the length of the second, trigonate, its apex obliquely truncate, its inner and upper angle acute. Thorax scarcely broader than long; sides straight and parallel, anterior angle slightly produced, obtuse; upper surface broadly excavated and coarsely foveolate-punctate on either side, medial disc and anterior margin nearly impunctate. Scutellum rather longer than broad, acute. Elytra parallel; sides obsoletely dilated towards the apex, the latter obtusely rounded; upper surface convex on the sides and apex, flattened along the suture, sculptured as in the preceding species.

This species is closely allied to the preceding, but may be separated by the straight sides and the nearly rectangular anterior angles of the thorax and by the different relative length of the lower joints of the antennæ.

27. Cephaloleia stenosoma. (Tab. II. fig. 4.)

Anguste elongata, parallela, dorso depressa, nitida; subtus nigra, femoribus anticis basi, pectoreque fulvis; supra fulva, capite nigro, collo lineaque inter oculos fulvis; thorace subquadrato, lateribus rectis, ad apicem vix convergentibus, angulo antico acuto, antrorsum non producto; disco lævi, ad latera vix excavato, sparse punctato, vitta discoidali lata, nigra aut piceo-nigra instructo; elytris parallelis, apice rotundatis, dorso deplanatis, ad latera convexis, tenuiter punctato-striatis, opacis, nigris, utrisque vitta lata, a basi ad ultra medium extensa, et ad marginem lateralem adfixa, fulva.

Var. A. Elytris totis fulvis.

Mas. Antennis filiformibus, articulo tertio compresso trigonato, quam secundus distincte longiori; abdominis segmento anali leviter sinuato.
Fem. Antennis ut in ♂; abdominis segmento anali integro, obtuso.
Long. 3¼ lin.

Hab. PANAMA, Bugaba 800 to 1500 feet (*Champion*).

Head shining, front minutely punctured, a narrow, slightly raised, longitudinal line free from punctures. Antennæ more than half the length of the body, filiform; basal joint clavate, second short, ovate, the third rather longer than the second, moderately compressed, trigonate, its apex obliquely truncate, the inner angle acute. Thorax rather longer than broad; sides straight and parallel from the base nearly to the apex, thence obliquely converging to the anterior angle, the latter not produced, acute; apical margin truncate; disc slightly convex, smooth and shining, obsoletely excavated and impressed, and with a few deep punctures on the sides. Scutellum pentagonal, its apex very acute. Elytra parallel, rounded at the apex, convex on the sides and at the apex, flattened along the suture, finely punctate-striate.

The present species may be at once known from any of its near allies by its narrower form and also by the more elongate thorax.

28. Cephaloleia leucoxantha.

Angustata, parallela, nitida, subtus nigra; prothorace, pectoris medio, abdominis limbo femoribusque [his apice exceptis] pallide flavis; supra pallide flava, scutello capiteque nigris; facie inferiori oreque flavis; antennis filiformibus, articulo tertio compresso et trigonato; thorace subquadrato, lateribus rectis; disco lævi, ad latera vage excavato et tenuiter punctato, macula trigonata nigra ad apicem adfixa ornato; elytris opacis, dorso deplanatis, tenuiter punctato-striatis, utrisque macula parva humerali nigra notatis.
Fem. Abdominis segmento anali leviter bisinuato.
Long. 3½ lin.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Vertex shining, impunctate. Antennæ slender, filiform, nearly half the length of the body; the third joint compressed, trigonate. Thorax subquadrate, broader than long; sides straight and parallel; disc transversely convex, obsoletely excavated and finely punctured on the sides. Elytra elongate, parallel, flattened along the suture, opaque, finely punctate-striate.

The above insect, of which I have only seen a single specimen, agrees with *C. stenosoma* in its narrow form, but differs in its broader thorax, and in the bisinuate apical segment of the abdomen in the female.

29. Cephaloleia bella.

Elongata, nigra, nitida; thorace, pectoris medio, femoribus abdomineque flavo-fulvis, hoc piceo limbato; tibiis anticis et posticis piceo-fulvis; capite tenuiter punctato, inter antennas plaga subcuneiformi sordide fulva instructo; thorace lævi, intra latera remote punctato, basi et apice nigro-piceo maculatis; lateribus fere rectis, apice incurvatis, angulo antico antrorsum producto, obtuso; elytris parallelis, disco subdeplanatis, ad latera deflexis, sat fortiter punctato-striatis, striis prope suturam et ad marginem sulcatis; utrisque vitta lata, a basi fere ad apicem extensa, apice fere ad suturam intus curvata, flava ornatis.

Mas. Antennis articulo tertio trigonato; abdominis segmento anali late sed obsolete emarginato.
Fem. Antennis ut in ♂; abdominis segmento anali apice utrinque sinuato.
Long. $3\frac{1}{2}$–4 lin.

Hab. PANAMA, Bugaba (*Champion*).

Head finely but not closely punctured; face broadly but slightly excavated on either side just above the insertion of the antennæ; between these latter is a slightly thickened wedge-shaped fulvous patch, which extends from the anterior edge of the clypeus nearly to the vertex. Antennæ with the basal joint thickened, subclavate, the second subovate, the third half as long again as the second, trigonate, its apex obliquely truncate. Thorax subquadrate; sides nearly straight and parallel [very faintly diverging in the male], rounded and converging at the apex, anterior angle produced, obtuse; disc transversely convex, smooth and shining, remotely impressed on the sides and at the base with large round punctures (which are sometimes obsolete); medial line with a very faint longitudinal impression, which runs upwards from the basal margin for a greater or less extent on the disc. Scutellum subcordiform, very acute. Elytra parallel, somewhat flattened on the disc, rather abruptly deflexed on the outer margin; strongly punctate-striate, the striæ sulcate; the interspaces thickened, those on the middle disc less distinctly so than those near the suture or on the outer margin, the pair between the sixth and eighth rows of punctures subcostate.

The larger size, the produced anterior angles of the thorax, together with the strongly punctured nitidous elytra, at once separate *C. bella* from its allies.

30. Cephaloleia quadrilineata.

Anguste elongata, nitida; subtus cum capite nigra aut nigro-picea, facie inferiori, thoracis lateribus, pectoris medio, abdominis limbo externo, femoribus [apice exceptis] tibiisque intus, flavis; capite subcrebre punctato; antennarum articulo tertio trigonato; thorace subquadrato; lateribus rectis, parallelis, angulo antico fere rectangulo, antrorsum non producto; disco lævi, utrinque punctis magnis impresso (*his punctis sæpe obsoletis*) flavo, vitta lata discoidali, a basi ad apicem extensa (*rarius interrupta*), nigra; scutello elytrisque nigris, his parallelis, dorso deplanatis, opacis, tenuiter punctato-striatis, utrisque limbo laterali, vittaque discoidali, a basi ad apicem extensa, apice cum limbo connexa, flavis.
Mas. Abdominis segmento anali apice truncato.
Fem. Abdominis segmento anali apice rotundato, utrinque sinuato.
Var. A. Elytrorum limbo laterali vittaque discoidali ante apicem abbreviatis.
Long. 3–$3\frac{1}{2}$ lin.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet, Tolé (*Champion*).

Front finely and rather closely punctured. Antennæ with the third joint half as long again as the second, compressed, trigonate. Thorax slightly broader than long; sides straight and parallel, anterior angle nearly rectangular; disc smooth and shining, coarsely punctured on the sides (in some specimens these punctures being nearly obsolete); a broad discoidal vitta, extending from the base to the apex, black. Elytra parallel, flattened on the disc, abruptly deflexed on the sides, finely granulose, opaque, very finely punctate-striate.

In addition to the different pattern of the elytra, this insect is narrower and rather more elongate than *C. suaveola*.

31. **Cephaloleia separata.**

Anguste elongata, nitida; subtus fulva, thorace utrinque macula, pleuris, genubus, tibiis anticis, dorso, posticis quatuor basi et apice, tarsisque nigris; abdominis vitta discoidali plus minusve interrupta nigro-picea; supra nigra, fronte tenuiter subcrebre punctata; antennarum articulo tertio trigonato; thorace subquadrato, lateribus rectis, angulo antico obtuso, lævi, fulvo, margine apicali medio nigro-piceo; elytris dorso deplanatis, subopacis, tenuiter punctato-striatis, utrisque linea marginali basi et apice abbreviata, vittaque discoidali a basi fere ad apicem extensa, fulvis, ornatis.

Mas. Abdominis segmento anali sat profunde sinuato.

Var. A. Elytrorum linea marginali fulva obsoleta.

Var. B. Antennis basi piceis, elytris ut in var. A.

Long. 3 lin.

Hab. Mexico, Playa Vicente (type), Santecomapam (vars. A and B) (*Sallé*).

Front finely and subremotely punctured. Antennæ with the second joint short, subtrigonate; the third joint rather longer than the second, trigonate, its apex obliquely truncate, the inner and upper angle acute. Thorax scarcely broader than long; sides straight and parallel, the anterior angle very slightly produced, rounded; disc smooth and shining, impunctate; on the anterior margin is a small ill-defined transverse nigro-piceous patch. Elytra parallel, flattened along the disc, very minutely punctate-striate; each elytron with a broad fulvous vitta which commences at the base and extends downwards nearly to the apex. Medial portion of the apical margin of the abdominal segments more or less broadly edged with nigro-piceous.

The pattern of the elytra in the typical form of this insect, of which I know only the male, is similar to that of *C. quadrilineata*, but the emargination of the anal segment of the abdomen in the male of that species is entirely different; the nigro-piceous markings on the abdomen sometimes form a narrow vitta on the medial disc.

32. **Cephaloleia belti.**

Anguste elongata, nigra, nitida; thorace, meso- et metasterno, femoribus [apice exceptis] tibiisque anticis intus flavo-fulvis; abdomine opaco, disco basali piceo-fulvo; thorace subquadrato, utrinque ad marginem punctato, vitta lata discoidali, a basi ad apicem extensa, nigra ornato; elytris parallelis, dorso depressis, opacis, tenuissime punctato-striatis, utrisque linea marginali, ante apicem abbreviata, nec non vitta lata discoidali a basi fere ad apicem extensa, fulvo-flavis.

Mas. Abdominis segmento anali late sed leviter emarginato, medio obsolete sinuato.

Fem. Abdominis segmento anali leviter bisinuato.

Long. 2½–3 lin.

Hab. Nicaragua, Chontales (*Belt*, *Janson*).

Head nitidous, front finely punctured between the eyes. Antennæ with the third joint slightly longer than the second, compressed, trigonate. Thorax broader than long; sides nearly straight and parallel, rounded and converging at the apex, anterior angle not produced, rounded; disc smooth and shining, in some specimens coarsely punctured

and broadly excavated on the sides, the rest of the surface impunctate. Elytra parallel, flattened on the disc, abruptly deflexed on the outer margin, minutely granulose, opaque.

Separated from either of the two preceding species by the different emargination of the anal segment of the abdomen in the male.

33. **Cephaloleia suaveola.**

Elongata, nitida, nigra; thorace, pectoris medio, abdominis lateribus, femoribus [apice exceptis] tibiisque subtus, fulvis; fronte inter oculos leviter concava, tenuiter subcrebre punctata; antennarum articulo tertio trigonato; thorace subquadrato; lateribus rectis, apice rotundato-angustatis, angulo antico paullo producto, obtuso; disco lævi, plaga cuneiformi ad marginem adfixa, nigra aut nigro-picea; elytris parallelis, dorso deplanatis, opacis, tenuiter punctato-striatis, utrisque vitta angustata basi et apice abbreviata, fulva, instructis.

Mas. Abdominis segmento anali apice leviter sed late sinuato.

Long. 3½ lin.

Hab. Guatemala, Purula in Vera Paz (*Champion*).

Front slightly excavated between the eyes, finely but closely punctured. Antennæ nearly half the length of the body, the second joint ovate, the third slightly longer than the second, trigonate, its apex obliquely truncate, its inner and upper angle acute. Thorax scarcely broader than long, subquadrate; sides straight and nearly parallel, rounded and converging at the apex, anterior angle rounded, slightly produced; disc smooth and shining. Scutellum much longer than broad, pentangular, very acute. Elytra parallel, flattened on the disc, opaque, very finely punctate-striate; the narrow fulvous line commences just below the basal margin, and terminates some distance from the apex of the elytra. Fulvous limb of abdomen broad, maculiform.

C. suaveola differs from *C. luctuosa*, to which it is closely allied, in the entirely black antennæ, and in the fulvous limb of the abdomen.

34. **Cephaloleia consanguinea.** (Tab. I. fig. 25.)

Elongata, nigra, subnitida; thoracis inferioris lateribus, sterno, femoribus (apice exceptis) tibiisque anticis intus fulvis, abdominis disco piceo-fulvo; capite thoraceque nitidis, illo inter oculos crebre punctato, antennarum articulo tertio trigonato, hoc subquadrato, lateribus rectis et ad apicem rotundato-angustatis; disco lævi, ad latera plus minusve punctato (punctis interdum obsoletis), fulvo, plaga trigonata, ad apicem adfixa, nigra; elytris parallelis, dorso deplanatis, opacis, nigris, utrisque vitta fulva, a basi fere ad apicem extensa, apice incurvata, instructis.

Mas. Abdominis segmento anali apice leviter sinuato.

Fem. Abdominis segmento anali apice rotundato, utrinque sinuato.

Var. A. Elytrorum vitta fulva sæpe apice non incurvata sæpe lineariformi.

Long. 3–3½ lin.

Hab. Guatemala, Cahabon, Sabo, Cubilguitz, Panima, and Chiacam in Vera Paz (*Champion*).

Front concave between the eyes, closely punctured. Antennæ with the second joint short, ovate, the third half as long again as the second, trigonate, its apex obliquely truncate, its inner and upper angle acute. Thorax subquadrate, scarcely broader than long; sides straight, nearly parallel, rounded and converging at the apex; anterior

angle very slightly produced, its apex rounded; disc smooth and shining, sparingly punctured on the sides, the punctures sometimes obsolete; the wedge-shaped black patch varies greatly in size, in some examples being confined to the apical margin, in others extending backwards to the middle. Scutellum longer than broad, pentagonal. Elytra parallel, flattened along the disc, opaque, minutely granulose, very finely punctate-striate.

C. consanguinea, judging from the number of specimens collected at various localities by Mr. Champion, is abundant in Guatemala; it may be separated from its congeners by the fulvous disc of its abdomen, which character appears to be constant. The fulvous coloration of the hinder tibiæ varies greatly in extent in different individuals: in some examples it is entirely obsolete; occasionally the anterior pair are more or less fulvous.

35. **Cephaloleia vicina.** (Tab. II. fig. 1.)

Cephaloleia vicina, Baly, Cat. Hispidæ, p. 55 [1].

Antennarum [in utroque sexu] articulo tertio cylindrico, a basi apicem versus paullo ampliato.

Hab. Mexico [1] (*colls. Baly and Brit. Mus.**), Toxpam, Capulalpam, Cordova, Juquila, Oaxaca, Playa Vicente (*Sallé*).

This species may be at once known from any of the foregoing by the cylindrical third joint of the antennæ, a distinctive character not mentioned in my original description.

36. **Cephaloleia ruficollis.** (Tab. II. fig. 2.)

Cephaloleia ruficollis, Baly, Cat. Hispidæ, p. 165 [1].

Fem. Abdominis segmento anali late sed leviter transversim emarginato.

Hab. Mexico [1], San Andres, Tuxtla, Toxpam, Cordova (*Sallé*, type), Jalapa, Juquila (*Höge*); Guatemala, Sinanja and Senahu in Vera Paz, San Gerónimo, Las Mercedes 3000 feet, Cerro Zunil 4000 to 5000 feet (*Champion*).

The two specimens collected by Herr Höge have the elytra rather less strongly punctured; in all other respects they agree with the type.

37. **Cephaloleia fulvolimbata.** (Tab. II. fig. 3.)

Anguste elongata, subcylindrica; subtus picea, nitida; supra nigra; thorace rufo, apice piceo tincto, subremote punctato; elytris parallelis, distincte sed tenuiter punctato-striatis, subnitidis, nigro-piceis, limbo laterali anguste fulvo.

Mas. Abdominis segmento anali apice concavo, medio sinuato.

Fem. Abdominis segmento anali apice leviter concavo.

Var. A. Thorace nigro.

Long. 1½–1¾ lin.

Hab. Mexico, Cordova (*Sallé*, var. A); Guatemala, San Juan, Chiacam, Cahabon, and Senahu in Vera Paz (*Champion*).

* The type specimens in my own collection and in the British Museum were obtained from M. Sallé, and doubtless came from one or other of the localities above mentioned.

Head granulose, distinctly punctured. Antennæ less than half the length of the body, robust; basal joint somewhat thickened, scarcely longer than the second, nearly equal in length to the third. Thorax scarcely broader than long; sides straight and parallel, broadly rounded, and abruptly converging at the apex, the anterior angle subacute, the hinder one produced into a small acute tooth; disc subcylindrical, smooth and shining, subremotely impressed with large round punctures. Elytra parallel, rounded at the apex, conjointly subangulate-emarginate at the sutural angle; subnitidous, finely but distinctly punctate-striate, the punctures larger and more strongly impressed on the anterior disc.

38. Cephaloleia metallescens.

Ovata, modice convexa, piceo-rufa, nitida; supra obscure cyanea; antennis (basi et apice exceptis) nigris; thorace transverso, sat crebre et fortiter punctato, margine laterali anguste rufo-piceo; elytris sat fortiter punctato-striatis, striis sulcatis, punctis pone medium minus fortiter impressis.

Fem. Abdominis segmento anali rotundato, integro.

Long. $1\frac{3}{8}$ lin.

Hab. GUATEMALA, San Juan in Vera Paz (*Champion*). A single specimen.

Head closely punctured. Antennæ about half the length of the body, robust; first and third joints equal in length, the second slightly shorter; basal joint, together with the apex of the terminal one, rufo-piceous. Thorax nearly twice as broad as long; sides straight, slightly converging from the base to the apex, anterior angle not produced, broadly rounded, hinder angle acute; disc transversely convex, excavated on either side just within the lateral margin, somewhat closely covered with large round punctures; lateral margin narrowly reflexed, rufo-piceous. Scutellum scarcely longer than broad. Elytra broadly oblong-ovate, moderately convex, strongly punctate-striate, the striæ sulcate, the puncturing finer on the hinder disc; interspaces on the lateral margin, and to a less extent on the inner disc, thickened and convex.

39. Cephaloleia leptomorpha.

Elongata, angustata, subcylindrica, cuprea, nitida; antennis nigris; pedibus piceo-cupreis; thorace quam lato paullo longiori, lateribus rectis, disco sat remote et tenuiter punctato; elytris parallelis, distincte punctato-striatis.

Mas. Abdominis segmento anali late sed leviter emarginato, medio sinuato.

Fem. Abdominis segmento anali late sed leviter emarginato.

Long. 2 lin.

Hab. PANAMA, Volcan de Chiriqui 8000 feet (*Champion*).

Vertex and front finely impressed with a double longitudinal groove. Antennæ nearly half the length of the body; basal joint thickened and equal in length to the third, the second joint rather shorter. Thorax distinctly longer than broad; sides straight and parallel, anterior angles rectangular; disc transversely convex, subnitidous, very finely and somewhat sparingly punctured. Elytra broader than the thorax; sides parallel, slightly

converging near the apex; upper surface slightly flattened along the suture, rather strongly punctate-striate.

The above insect closely resembles some of the species of *Stenispa*.

40. Cephaloleia tenella.

Elongata, angustata, parallela, nigra, nitida; dorso æneo vix micans; abdomine piceo, tarsis piceo-fulvis; thorace quam longo vix latiori, lateribus parallelis, disco subcylindrico, sat fortiter punctato; elytris parallelis, apice obtuse rotundatis, sat fortiter punctato-striatis.

Mas. **Abdominis segmento anali concavo-emarginato, medio sinuato.**

Long. $1\frac{3}{8}$ lin.

Hab. Guatemala, Coatepeque 1300 feet (*Champion*).

Vertex and front rather closely punctured. Antennæ filiform, scarcely longer than the head and thorax, slightly thickened towards the apex, the two lower joints equal in length, the basal one not thickened. Thorax very slightly broader than long; sides straight and parallel, abruptly rounded and converging at the apex; anterior margin convex, sinuate on either side; disc transversely convex, rather strongly but not very closely punctured, the puncturing more distant on the medial disc. Elytra rather broader than the thorax, parallel on the sides, obtusely rounded at the apex; disc strongly and regularly punctate-striate, the interspaces impunctate.

41. Cephaloleia stevensi. (Tab. I. fig. 20.)

Angustato-elongata, nigra, nitida; pedibus fulvis; thorace sat fortiter punctato, sordide fulvo, vitta discoidali nigra; elytris parallelis, apice obtuse rotundatis, fortiter punctato-striatis, flavis, puncto humerali maculisque rotundatis duabus, communibus, una basi et una vix pone medium positis, nigris.

Long. $1\frac{1}{2}$ lin.

Hab. Panama, Bugaba (*Champion*).

Vertex and front closely punctured, the latter concave. Antennæ half the length of the body, filiform, entirely black. Thorax distinctly longer than broad; sides straight and parallel, rounded at the extreme apex, anterior angles not produced, apical margin truncate; upper surface subcylindrical, slightly excavated transversely at the base, strongly and closely punctured; obscure fulvous, a broad longitudinal vitta on the middle disc black, the extreme lateral margin piceous. Scutellum pentangular. Elytra narrowly oblong, parallel, rounded at the apex, strongly punctate-striate, flavous, a small oblong patch on the humeral callus, together with two large common, rotundate spots, one at the base, the other placed just beyond the middle, black.

42. Cephaloleia sulciceps.

Sat elongata, subtus fulva, supra sordide rufo-fulva, nitida; antennis (articulis basalibus duobus exceptis) nigris; vertice sat profunde bisulcato; thorace transverso, lateribus parallelis, disco sat remote punctato; elytris parallelis, lateribus ad apicem oblique convergentibus, apice truncatis, dorso convexis, ad latera ante medium sinuatis, regulariter punctato-striatis.

Mas. Abdominis segmento anali late sed leviter transversim emarginato.
Fem. Abdominis segmento anali late sed leviter transversim excavato, utrinque leviter sinuato.
Long. 1½ lin.

Hab. PANAMA, Bugaba (*Champion*).

Vertex and front deeply impressed with two closely approximating longitudinal grooves, which run downwards as far as the insertion of the antennæ, the space between forming a slight and obsoletely thickened longitudinal ridge. Antennæ scarcely longer than the head and thorax, robust; two basal joints short, equal, rufo-piceous, glabrous, the rest black, closely clothed with adpressed concolorous hairs. Thorax transverse; sides parallel from the base to some distance beyond the middle, thence rounded and converging to the apex, anterior angle scarcely produced, broadly rounded, apical margin truncate; upper surface transversely convex, sparingly impressed with large but shallow punctures. Scutellum longer than broad, subcordate, the apex acute. Elytra narrowly oblong; sides straight and parallel, obliquely rounded and converging near the apex, the apex itself truncate; above convex, sinuate on the sides before the middle, regularly punctate-striate.

DEMOTISPA.

Demotispa, Baly, Cat. Hispidæ, p. 65, t. 1. f. 14.

The species of this genus are natives of South and Central America and the Antilles; some of them bear a remarkable resemblance to certain forms of Cassididæ (*Himatidium*), and, as seen below, the late H. Boheman described one (*H. limbatellum*) as belonging to that genus.

1. **Demotispa bimaculata.**

Demotispa bimaculata, Baly, Cat. Hispidæ, p. 68[1].

Hab. MEXICO[1] (*coll. Baly*, type).

2. **Demotispa limbata.** (*Demotispa limbatella*, Tab. II. fig. 5.)

Late oblongo-ovata, depressa, flava, nitida; pectore piceo, abdomine piceo-tincto, antennis nigris; thorace quam longo plus duplo latiori, basi et ad latera foveolato-punctato, plaga basali magna trigonata nigra; scutello piceo; elytris subquadrato-ovatis, regulariter punctato-striatis, striis externis subsulcatis, nigris, limbo exteriori late flavo.
Long. 2¾ lin.

Hab. GUATEMALA, Cubilguitz in Vera Paz 1000 feet (*Champion*).

Head smooth and shining; face concave between the eyes, medial line with an oblong ridge. Antennæ nearly two thirds the length of the body, filiform; joints cylindrical, first short, the second distinctly longer than the basal one, third longer than the preceding two united; apex of the terminal joint piceous. Thorax more than twice as

broad as long; sides straight and parallel from the base nearly to the middle, thence rounded and converging to the apex; upper surface slightly convex on the disc, reflexed on the sides, finely but not closely punctured; on the sides of the disc and along the basal margin are a number of large round foveolate punctures. Elytra subquadrate-ovate; sides rather broadly dilated, reflexed; regularly and distinctly punctate-striate, the striæ on the outer disc subsulcate.

3. Demotispa limbatella.

Himatidium limbatellum, Boh. Mon. Cassididæ, iv. (Suppl.), p. 29[1].

Late oblongo-ovata, depressa, nitida; subtus nigra, thorace pedibusque flavis, genubus tarsisque piceis; supra flava, antennis thoracisque plaga magna trigonata, a basi fere ad apicem extensa, nigris; thorace quam longo fere duplo latiori, lateribus reflexis, rotundatis, a basi fere ad medium divergentibus; disco lævi, ad basin et ad latera sparse foveolato-punctato; scutello nigro; elytris subquadrato-ovatis, distincte punctato-striatis, striis externis sulcatis, interspatiis minute punctatis, ante medium obsolete rugulosis, nigris, limbo externo late flavo.

Long. 3 lin.

Hab. GUATEMALA[1] (*Sallé*; type, *Boheman*).

Antennæ slender, filiform, more than half the length of the body; joints cylindrical, the second distinctly longer than the basal one, the third longer than the preceding two united. Thorax twice as broad as long; sides straight and slightly diverging from the base nearly to the middle, thence broadly rounded and converging to the apex, posterior angle acute; upper surface broadly reflexed on the sides, smooth and impunctate on the anterior disc, sparingly impressed with deep punctures at the base and towards the lateral margin. Elytra broader than the thorax, subquadrate-ovate; distinctly punctate-striate, the striæ near the outer limb sulcate; interspaces distinctly but finely punctured, faintly rugulose on the anterior disc; outer limb reflexed, smooth, impunctate.

Very closely allied to *D. limbata*, differing in the slightly diverging and more broadly rounded sides of the thorax, the elytra being also more depressed and rather more strongly punctured, and the interspaces between the striæ being also finely but distinctly punctured. The coloration of the under surface of the body is also different.

The two specimens (one of either sex) from which Boheman drew up his description are now before me; they are fairly similar to each other. The species figured under the name of *Demotispa limbatella* (Tab. II. fig. 5) is to be referred to *D. limbata*.

PROSOPODONTA.

Prosopodonta, Baly, Cat. Hispidæ, p. 68, t. 1. f. 15.

The species up to the present time described as belonging to this genus are few in number; they inhabit Central America and Colombia.

1. **Prosopodonta limbata.** (Tab. II. fig. 6.)

Prosopodonta limbata, Baly, Cat. Hispidæ, p. 69, t. 6. f. 2[1].

Hab. PANAMA, Volcan de Chiriqui 2500 to 6000 feet (*Champion*).—COLOMBIA[1] (*coll. Baly*, type).

In the specimens from the State of Panama the black colour covers a greater space on the dorsal surface of the elytra than in the type.

2. **Prosopodonta costata.** (Tab. II. fig. 7.)

Oblongo-elongata, subtus nigra, nitida; thorace fulvo-piceo; supra piceo-fulva, antennis nigris; thorace quam longo vix latiori, lateribus leviter rotundatis, basi fere rectis, disco convexo, lævi, basi et ad latera punctato; elytris oblongis, convexis, fortiter punctato-striatis, striis biseriatim dispositis, interspatiis secundo et quarto costatis, costa exteriori [nec non limbo laterali] sordide fulvis.

Long. 3⅝ lin.

Hab. PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).

Head smooth and shining; face armed between the antennæ with an acute tooth. Antennæ rather longer than the head and thorax, distinctly thickened towards the apex, the joints cylindrical. Thorax rather broader than long; sides obtusely rounded, obsoletely angulate immediately behind and again just before the middle, straight and slightly diverging at the base, converging from the middle to the apex, apical angle not produced, obtuse; upper surface convex, smooth and shining, impressed on the sides and hinder disc with large deep punctures. Elytra oblong, subparallel, regularly rounded at the apex; strongly punctate-striate, the striæ (nine at the extreme base and eight on the rest of the surface) arranged in double rows; alternate interspaces slightly elevated, the second and fourth from the suture more strongly thickened, costate.

The present insect differs entirely in the coloration of its thorax from any hitherto described species of the genus.

CHEIRISPA.

Cheirispa, Baly, Cat. Hispidæ, p. 71, t. 1. f. 16.

Four species of this peculiar genus are now known, all from Central America and Colombia.

1. **Cheirispa dorsata.** (Tab. II. fig. 8.)

Anguste oblonga, nitida, subtus nigra, thorace piceo; supra rufo-picea aut nigro-picea, antennis nigris; facie inter antennas creta elevata, sæpe in dentem curvatum producta, instructa; thorace quam longo latiori, lateribus a basi ad ultra medium fere rectis, parallelis, antice rotundato-angustatis, medio leviter angulatis, disco lævi, ad latera punctato; elytris oblongis, punctato-striatis, striis ad latera et apicem versus

subsulcatis; rufo-fulvis, plaga magna ovata, communi, a paullo infra basin ad longe pone medium extensa, nigra, ornatis; pedibus anticis in utroque sexu inermibus.
Long. 2¾ lin.

Hab. NICARAGUA, Chontales (*Belt*); PANAMA, Bugaba (*Champion*).

Face between the antennæ with a longitudinal ridge, its lower half usually produced into a recurved horn, the apex of which is sometimes dilated and truncate. Antennæ filiform, slightly thickened towards the apex, third joint nearly equal in length to the preceding two united. Thorax broader than long; sides nearly straight and parallel, usually slightly angulate in the middle, rounded and converging towards the apex; disc smooth, punctate on the sides. Elytra oblong, convex, the humeral callus laterally prominent, but not compressed as in *C. distincta*; surface regularly punctate-striate, the striæ on the sides and at the apex sulcate. Anterior pair of legs simple.

2. **Cheirispa distincta.** (Tab. II. fig. 9.)

Anguste oblonga, convexa, subtus nigra, nitida, thorace piceo; supra picea; antennis nigris; thorace lævi, ad latera sparse punctato; elytris oblongis, regulariter punctato-striatis, striis ad latera et ad apicem sulcatis, pallide piceis, plaga magna, male definita, a basi ad pone medium extensa, picea.
Mas. Antennis basi approximatis, cornu faciali nullo; femoribus anticis subtus spina acuta armatis; tibiis curvatis, extus infra basin tuberculo parvo armatis, apice valde incrassatis.
Fem. Femoribus anticis inermibus, tibiis ad apicem minus incrassatis.
Var. A. Tibiis anticis pallide piceis.
Var. B. Pallide piceo-fulva, antennis extrorsum nigris.
Long. 2½ lin.

Hab. PANAMA, Bugaba 800 to 1500 feet, Volcan de Chiriqui 2000 to 6000 feet (*Champion*).

Vertex and front impunctate, the latter impressed with a longitudinal groove; lower face unarmed. Antennæ more than half the length of the body, filiform, very slightly thickened towards the apex; the third joint slender, equal in length to the preceding two. Thorax broader than long; sides sinuate and parallel from the base to beyond the middle, thence rounded and converging to the apex; disc convex, smooth and shining, sparingly punctured on the sides. Elytra oblong, convex, slightly flattened along the anterior two thirds of the suture, humeral callus compressed laterally into a short ridge; surface regularly punctate-striate, the striæ sulcate on the sides and at the apex; interspaces (with the exception of those on the anterior portion of the inner disc) thickened and more or less costate. Anterior thighs in the male thickened, armed beneath with an acute spine.

Both this and the preceding species agree closely in coloration with those characterized in the 'Catalogue of Hispidæ.' *C. distincta* differs, however, in the absence of the frontal horn, and *C. dorsata* in having the anterior pair of thighs unarmed.

ARESCUS.

Arescus, Perty, Del. Anim. Art. p. 100 (1832); Baly, Cat. Hispidæ, p. 80, t. 2. f. 2.
Chelobasis, Gray, Griffith's Animal Kingdom, Ins. ii. 143, t. 101. figg. 4, 4 *a–g*.

The insects belonging to the genus *Arescus* are above the medium size, brilliantly coloured, and are so variable in tint and markings that in a long series of individuals belonging to the same species, it is comparatively rare to find two specimens of precisely the same colour and pattern. From their abundance and variability it is fair to assume that the conditions under which these insects live are greatly in excess of the absolute requirements of the species, and that the additional vital energy thus produed expends itself in the development of innumerable variations from the original type of coloration.

Of the same habits as *Prosopodonta*, *Cheirispa*, and most of the species of *Cephaloleia*, and found in the broad unopened leaves of Musaceæ and Marantaceæ (*Champion*).

1. **Arescus bicolor.** (Tab. II. figg. 10, 11.)

Chelobasis bicolor, Gray, loc. cit. p. 143, t. 67. f. 4[1].
Arescus labiatus (Perty), Baly, Cat. Hispidæ, p. 83[2].

Oblongo-elongatus, fulvus aut flavus, nitidus; antennis [basi excepta], scutello, femoribus apice, tibiis tarsisque nigris; thorace transverso; lateribus rectis, rarius ante medium ampliatis, ad apicem rotundato-angustatis, disco lævi; scutello elongato-trigonato, obtuso; elytris anguste oblongis, parallelis, apice conjunctim rotundatis, regulariter punctato-striatis, utrisque maculis duabus infra basin, transversim dispositis, fascia prope medium, utrinque abbreviata, plaga magna ante apicem, lineaque marginali, postice abbreviata, interdum obsoleta, nigris.

Var. A. Thorace piceo aut nigro tincto, elytrorum fascia integra, plaga subapicali communi.
Var. B. Thorace nigro, elytrorum apice toto nigro.
Var. C. Niger, elytris rufis, fascia nigra communi extrorsum abbreviata, maculis basalibus interdum obsoletis.
Var. D. Subtus niger, thorace rufo-fulvo, femoribus flavo-maculatis; supra rufo-fulvus; antennis (articulo secundo excepto), verticis macula, scutello elytrorumque punctis tribus, horum primo supra callum humerale, secundo vix ante medium, tertio inter medium et apicem positis, nigris.
Var. E. Pallide flavus, antennis extrorsum, oculis, scutello, elytrorum puncto humerali, femorum apice, tibiis extus tarsisque nigris.
Var. F. Elytris totis flavis aut fulvis.
Var. G. Thorace flavo et fulvo, nigro variegato.
Long. 4½–5 lin.

Hab. GUATEMALA, Senahu and Sabo in Vera Paz (*Champion*); PANAMA, Bugaba 800 to 1500 feet, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).—SOUTH AMERICA[1]; COLOMBIA; GUIANA, Cayenne[2].

This species is abundant in the forest-region of the State of Panama. Large numbers of specimens, including all the varieties, are often found clustered together in the unopened leaves (*Champion*).

Although most inconstant in pattern, many of the specimens agree with the figure of *Chelobasis bicolor*, Gray, in Griffith's 'Animal Kingdom.' I have therefore restored Gray's name, which I had formerly given as a synonym of *A. labiatus*, Perty. Specimens from Colombia and Cayenne placed (Cat. Hisp.) under the latter species belong here.

2. **Arescus perplexus.** (Tab. II. figg. 12, 13.)

Arescus perplexus, Baly, Cat. Hispidæ, p. 84[1] (nec Waterh.).

Var. A. Subtus fulvo-piceus, piceo variegatus; supra fulvus; antennis extrorsum nigris; elytris piceo-punctatis, utrisque macula parva humerali alteraque discoidali, vix ante medium posita, nigris, æneo vix micantibus.

Hab. Costa Rica (*Van Patten*).—Colombia [1] (type, *coll. Baly*).

This species, which probably is as variable as most of its congeners, is apparently rare, only two specimens (the typical one from Colombia and a second from Costa Rica) being known to me. The specimen from Costa Rica differs from the type in having the sides of the thorax obliquely converging; in all other respects (except colour) it agrees with the typical form. *A. perplexus* may be at once separated from its allies by the angular apices and deep punctuation of the elytra.

Owing to this species having been accidentally omitted from Gemminger and Harold's Catalogue, Mr. C. O. Waterhouse has since described another insect under the same name.

CEPHALODONTA.

Cephalodonta, Baly, Cat. Hispidæ, p. 124, t. 2. f. 15.

Twenty-two species of this genus are described or enumerated below; of this number four only were previously known.

Mr. Champion informs me that most of the species are found sitting upon leaves, some in the dense forest, others in the thinly-wooded savanna country; they are more numerous in the "tierra caliente" than at the higher elevations.

1. **Cephalodonta gemmans.** (*Cephalodonta generosa**, Tab. II. fig. 14.)

Anguste oblonga, convexa, nitida; subtus nigro-picea aut nigra; supra viridi-ænea; capite granuloso, nigro-æneo aut æneo, facie inferiori antennisque piceo-fulvis, his filiformibus, ad apicem paullo incrassatis, articulis sexto et septimo flavis, ultimis quatuor nigris; thorace quam lato longiori, subcylindrico, crebre foveolato-punctato, basi et apice piceo-fulvo marginato; elytris oblongis, lateribus vix ante medium constrictis, pone medium paullo ampliatis, apice subacute rotundatis, ad suturam leviter emarginatis, convexis, seriatim punctatis, tuberculis aut cretis oblongis octo aut novem quadriseriatim dispositis instructis, viridi-æneis, basi nec non sutura piceo-fulvis, limbo exteriori flavo, æneo tincto.

Long. $1\frac{1}{3}$–2 lin.

Hab. Guatemala, Cerro Zunil 4000 to 5000 feet, Las Mercedes 3000 feet (*Champion*).

Head finely granulose, vertex impressed with a deep longitudinal groove; front produced just above the insertion of the antennæ into a short triangular plate. Antennæ half the length of the body, filiform, slightly thickened towards the apex; joints cylindrical, the basal one short, submoniliform, second slightly longer, subovate, the third,

* On the Plate the name of this species is wrongly given as *Cephalodonta generosa*, a name already employed by Guérin for a species of the same genus.

fourth, and fifth slender, nearly equal, each one half as long again as the second. Thorax longer than broad; sides nearly straight and parallel, slightly angulate, anterior angle armed with a short obtuse tooth; upper surface closely covered with large foveolate punctures. Scutellum narrowly oblong, longitudinally sulcate. Elytra oblong; sides slightly constricted just before the middle, rounded and slightly dilated posteriorly, apex acutely rounded, conjointly emarginate at the suture, sutural angle armed with a small tooth; above convex, each elytron with ten, at the extreme base with eleven, rows of large punctures; humeral callus laterally produced, cristate, and forming the anterior portion of a longitudinal costa, which, interrupted in its middle portion, extends along the sixth interspace to its apex; on the rest of the interspaces are eight or nine longitudinal ridges or tubercles, placed as follows:—four on the second, three on the fourth, and one, very narrow, on the eighth [the basal one on the fourth is small and sometimes obsolete, and the apical one narrow, elongate, and posteriorly confluent with the apex of the longitudinal costa on the sixth interspace]; the flavous limb narrower at the base, much broader on the sides and apex, its surface irregularly stained with cupreous, its inner margin ill-defined.

2. **Cephalodonta callosa.** (Tab. II. fig. 15.)

Anguste oblonga, convexa, pallide picea, opaca; pectore abdomineque nitidis, illo nigro-piceo, hoc nigro; antennis filiformibus, ad apicem paullo incrassatis, articulis ultimis quatuor piceo-nigris; thorace subcylindrico, quam lato longiori, rude punctato, vittis callosis quatuor, duabus externis pone medium fere obsoletis, instructis; elytris oblongis, convexis, fulvo variegatis, callo humerali lateraliter producto, cristato, seriatim punctatis, utrisque vittulis elevatis novem, quadriseriatim dispositis; femoribus dorso verrucatis, tibiis ad apicem incurvatis.

Long. 3 lin.

Hab. PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).

Front armed between the antennæ with a short acute tooth. Antennæ more than half the length of the body, filiform, slightly thickened at the apex; joints cylindrical, the basal one short, moniliform, second slightly longer, ovate, third, fourth, and fifth equal, each rather longer than the second, sixth and seventh gradually decreasing in length from the fifth, seventh pale fulvous, the four outer ones pitchy black. Thorax nearly one fourth longer than broad, subcylindrical; sides nearly parallel, obsoletely angulate, apical angle armed with a small obtuse tooth; coarsely punctured, slightly excavated transversely behind the middle; disc with four ill-defined slightly raised callose vittæ, extending from the base to the apex, the outer pair much less distinct and nearly obsolete on the hinder disc. Elytra much broader than the thorax, oblong, parallel, rounded at the apex; above convex, flattened between the humeral calli, the latter strongly produced laterally, bicristate, acute; each elytron with ten, at the extreme base with eleven, rows of large deeply impressed punctures; their interspaces with nine short, strongly raised, longitudinal ridges, arranged as follows:—four at nearly equal distances on the second interspace, two on the fourth (the anterior one just before,

the hinder one just behind the middle), one on the sixth (halfway between its middle and the apex), and, lastly, two on the eighth (the first elongate, near the middle, the second shorter, subapical); the two ridges on the humeral callus cover, one nearly the basal half of the sixth, the other the basal fourth of the eighth interspaces.

This and the preceding species ought to be placed near *C. marginata*, Guér.

3. **Cephalodonta godmani.** (Tab. II. figg. 16, 17.)

Subquadrata, postice paullo ampliata, pallide flava, nitida; capite (antennis exceptis), thorace scutelloque rufo-fulvis; pectore fulvo; thorace transverso, ante medium abrupte constricto, lateribus medio acute angulatis; elytris late explanatis, rufis, punctato-striatis, striis gemellatis, nigris, limbo externo (hoc rufo bimaculato), fascia irregulari prope medium, ad limbum ampliata [nec non callo longitudinali baseos] prope suturam albidis; callo humerali lateraliter producto, acuto.

Mas. Tibiis anticis intus ante apicem dente brevi armatis.

Var. A (*mas*). Antennis apice fuscis; thorace latiori, sordide flavo; elytris flavis, spatiis inter costas rufo-fulvis.

Long. 5–6 lin.

Hab. Nicaragua, Chontales (*Belt*); Panama, Peña Blanca 3000 to 4000 feet (*Champion*, var. A).

Face between the antennæ with an acute tooth. Antennæ rather more than half the length of the body, filiform; joints cylindrical, the two lower ones short, equal. Thorax twice as broad as long in the medial line, its anterior portion abruptly contracted to nearly half its width; sides straight and obliquely diverging from the base to the middle, thence to the apex entirely occupied by a deep angular notch, the anterior border of which is nearly perpendicular and forms the lateral margin of the constricted half of the thorax, whilst the hinder border is horizontal and runs directly outwards to form an acute angle with the oblique hinder portion of the margin; apical angle armed with a stout subacute tooth; upper surface transversely excavated at the base, impressed, but rather sparingly, with large irregular punctures, medial disc nearly impunctate. Elytra much broader than the thorax; sides broadly dilated, obtusely rounded, posterior angle not produced, obtusely angulate, apical margin obliquely rounded; upper surface flattened between the humeral calli, the latter strongly produced laterally, their apices acute; each elytron with ten longitudinal rows of deep punctures, arranged in pairs, the inner pair abbreviated at the base, the space being occupied by an irregular longitudinal callosity, which extends downwards from the basal margin for nearly one fourth the length of the elytron; the suture, together with the second, fourth, sixth, and eighth interspaces, costate; rufous, the interspaces between the costæ black; the outer limb, an irregular fascia [dilated on the outer margin] just behind the middle, together with the basal callus, white; the outer limb has two large rufous patches, attached by their inner edges to the disc, and extending outwardly nearly to the lateral margin, of these one is placed before, the other behind the middle.

Var. A (Tab. II. fig. 17) is larger, and paler in colour; the angular lobes on the sides of the thorax are longer and more acute, and occupy a larger portion of the surface; the anterior tibiæ are armed just behind the apex with a short tooth. These differences are probably sexual.

The example from Peña Blanca was captured by beating bushes in the open savanna country.

4. **Cephalodonta maculata.** (Tab. II. fig. 18.)

Late cuneiformis, dorso depressa, fulva, subtus nitida; pectoris lateribus, abdominis apice, coxis femoribusque basi et apice fusco-æneis; supra subnitida; antennis robustis, filiformibus, obscure rufis, piceo tinctis, extrorsum nigris; thorace conico, lateribus fere rectis, irregulariter sinuatis, antrorsum in dentem validum productis, disco crebre foveolato-punctato, vittis duabus fusco-æneis instructo; elytris quam thorax multo latioribus, subquadrato-oblongis, postice ampliatis, apice obtuse rotundatis, angulo postico acuto, convexis, dorso deplanatis, seriatim punctatis, interspatio secundo costato, quarto, sexto et octavo minus distincte elevatis, callo humerali lateraliter producto, subacuto; fusco-æneis, fulvo maculatis.

Mas. Tibiis anticis intus ante apicem dente brevi armatis.

Fem. Tibiis anticis inermibus.

Long. 4½ lin.

Hab. GUATEMALA, Sinanja in Vera Paz (*Champion*).

Vertex smooth, impunctate; front finely punctured, impressed with an oblong fovea, and armed between the insertion of the antennæ with a minute tooth. Antennæ scarcely half the length of the body, robust, filiform; joints cylindrical, two lower ones short, equal, submoniliform, the third nearly equal in length to the preceding two united, the following three gradually decreasing in length; the seven lower joints obscure rufous, stained with piceous, the four outer ones entirely black. Thorax conic; sides obliquely converging from the base to the apex, obsoletely and irregularly crenulate, apical angle produced anteriorly into a strong flattened subacute tooth; transversely convex, flattened and longitudinally excavated on the sides in front, closely covered with irregular foveolate punctures. Elytra much broader than the thorax; sides dilated posteriorly, apex obtusely rounded, the posterior angle acute; upper surface slightly convex on the sides and apex, flattened on the disc; humeral callus laterally produced, subacute; each elytron with ten, at the extreme base with eleven, rows of large deep punctures; second interspace rather strongly, fourth, sixth, and eighth less distinctly, costate; fuscous-æneous, covered with a number of fulvous spots or patches irregularly scattered over the surface.

Three examples were captured by Mr. Champion in the dense forest.

5. **Cephalodonta quinquemaculata.** (Tab. II. fig. 19.)

Metazycera quinquemaculata, Guér. Icon. du Règne Anim. Texte, p. 270[1].
Cephalodonta quinquemaculata, Baly, Cat. Hispidæ, p. 127, t. 9. f. 9[2].

Hab. MEXICO[2] (*coll. Baly*).—COLOMBIA[1].

This species is apparently rare, as it is not represented in any of the collections from Central America now before me.

6. **Cephalodonta championi.** (Tab. II. fig. 20.)

Elongata, postice sat late ampliata, dorso deplanata; subtus nigra, nitida; capite inferiori, thoracis lateribus et medio, coxis, femoribus basi abdominisque lateribus sordide fulvis; supra minus nitida, fulva; macula verticali, antennis (basi picea excepta) scutelloque nigris; thorace transverso, lateribus basi rectis, parallelis, vix pone medium angulatis, hinc ad apicem obliquis, disco transversim convexo, basi excavato, crebre et fortiter punctato, nigro trivittato; elytris pone medium valde explanatis, apice late rotundatis, ad suturam valde et late emarginatis, serrulatis; angulo suturali dente brevi ornato, angulo postico obsoleto; disco deplanatis, fortiter punctato-striatis; utrisque bicostatis, limbo profunde punctato; vitta brevi communi basali, bifurcata, nigra ornatis.

Var. A. Elytrorum vitta nigra obsoleta.

Var. B. Elytris apice plagaque subanchoriformi a basi ad medium extensa, nigris.

Long. 3–4 lin.

Hab. PANAMA, Bugaba 800 to 1500 feet, Caldera in Chiriqui 1200 feet (*Champion*).

Head rather strongly produced between the eyes, front coarsely punctured; inter-antennal space with a perpendicular ridge. Antennæ half the length of the body, attenuated at the base and apex, robust; the two lower joints cylindrical, the third (which is nearly equal in length to the preceding two united) slightly compressed; terminal joint acute, subuncinate. Thorax about one third broader than long; sides deflexed, straight and parallel at the base, distinctly angulate just behind the middle, thence straight and obliquely converging towards the apex, anterior angle armed with a small obtuse tooth; above transversely convex, deeply and rather broadly excavated on the hinder disc, closely and coarsely punctured; medial line with a narrow longitudinal groove; a discoidal vitta, together with one on either side, just within the lateral margin, black. Scutellum oblong-quadrate. Elytra broader than the thorax, dilated from the base towards the posterior angle, the latter broadly rounded; apical margin rounded, conjointly emarginate at the suture; sutural angle armed with a short acute tooth; lateral margin finely, the apical one more coarsely serrulate; upper surface flattened between the humeral calli and also along the anterior two thirds of the suture, the calli themselves laterally prominent; disc deeply impressed at the base and apex, and with twelve, in the middle with eleven, rows of large round punctures; the third and sixth interspaces costate; on the lateral margin of the disc, immediately below the humeral callus, is also a short, third costa; dilated limb closely covered with similar punctures to those on the disc; at the extreme base, commencing at the scutellum and extending downwards for about one fourth the length of the elytron, is a narrow sutural black line, its hinder half bifurcate. Legs slender, elongate; thighs more or less stained beneath with piceous.

7. **Cephalodonta sallæi.**

Cephalodonta sallei, Baly, Cat. Hispidæ, p. 150[1].

Hab. Mexico, Cordova[1] (type, *coll. Sallé*); British Honduras, Rio Hondo (*Blancaneaux*).

8. **Cephalodonta pallida.**

Anguste cuneiformis, dorso subdepressa; subtus picea, nitida; pectoris medio, abdominis femorumque basi thoraceque inferiori (hoc utrinque piceo vittato) pallide flavis; supra subopaca, pallide flava; capite lævi, verticis macula, ore antennarumque articulo basali (*cæteri desunt*) nigro-piceis; thorace lateribus obtuse angulatis, rude foveolato-punctato, vitta discoidali nigro-picea; scutello nigro; elytris postice ampliatis, apice obtuse rotundatis, angulo postico dente parvo acuto armato, profunde seriatim punctatis, interspatio quarto valde costato, secundo, sexto et octavo pone medium distincte elevatis; callo humerali lateraliter producto, acuto.

Long. 4 lin.

Hab. Nicaragua, Chontales (*Belt*).

Head smooth; the basal joint of the antennæ short (the rest broken away). Thorax rather broader than long; sides parallel at the base, obtusely angulate in the middle, thence obliquely converging towards the apex, anterior angle subacute; upper surface convex on the sides, broadly flattened on the disc, slightly excavated behind the middle, closely covered with large round punctures; apical margin impunctate. Elytra broader than the thorax; sides increasing in width from the base towards their apex, more abruptly dilated behind the middle, hinder angle armed with a small acute tooth, the apex of which is produced directly backwards; lateral margin entire, the apical margin finely serrulate; upper surface convex on the sides and apex, flattened along the anterior two thirds of the suture; humeral callus laterally produced, its apex acute; each elytron with ten rows of large deep punctures; the fourth interspace strongly costate for its whole length, the second, sixth, and eighth thickened behind the middle of the disc.

The broader thorax and acute apices of the humeral calli will separate this species from *C. javeti*.

9. **Cephalodonta gracilenta.** (Tab. II. fig. 21.)

Anguste elongata, parallela, nitida; subtus fulva, thoracis vitta laterali, pectoris lateribus femoribusque piceis, his basi, tibiis tarsisque pallide rufo-fulvis, abdomine piceo tincto; supra flava, antennis nigro-piceis aut nigris, apice sordide rufo-piceis; thorace crebre foveolato-punctato, medio nigro-piceo vittato, lateribus vix pone medium angulatis; scutello nigro-piceo; elytris elongatis, parallelis, medio leviter constrictis, apice obtuse rotundatis, angulo postico spina acuta armato, fortiter seriatim punctatis, utrisque vitta humerali, fere ad medium extensa, anguloque postico nigro-piceis.

Mas. Tibiis anticis intus prope apicem spina aut dente brevi armatis.

Fem. Tibiis anticis intus prope apicem tuberculatis.

Long. 3–3½ lin.

Hab. Panama, Bugaba 800 to 1500 feet (*Champion*).

Vertex and front shining, impunctate, the latter impressed with an oblong fovea; the

face armed between the antennæ with a minute tooth. Antennæ nearly three fourths the length of the body, slender, filiform; joints cylindrical, basal one short, moniliform, second to the fifth nearly equal in length, each about twice as long as the first; four upper joints obtuse, rufo-piceous, the three lower ones (in some specimens) obscure piceous. Thorax scarcely longer than broad; sides straight and parallel from the base to just behind the middle, thence obliquely converging to the apex, the anterior angle armed with a short obtuse tooth; upper surface closely covered with large irregular foveolate punctures, the space immediately behind the apical margin impunctate; a narrow vitta on the medial disc, together with a few of the punctures on the extreme lateral margin, nigro-piceous; on the vitta is a very narrow and slightly raised longitudinal line. Elytra elongate, parallel; sides very slightly sinuate and constricted in the middle; apex obtusely rounded, the hinder angle armed with a short, acute, flattened spine, the apex of which looks directly backwards; upper surface convex on the sides and apex, flattened along the suture; humeral callus produced laterally, its apex extending slightly beyond the lateral margin, acute; each elytron with ten, at the extreme base with eleven, regular rows of large deep punctures, which cover nearly the whole surface; fourth interspace obsoletely costate; a narrow vitta, extending from the apex of the humeral callus nearly to the middle of each elytron, less distinct and sometimes entirely obsolete posteriorly, together with the spine at the hinder angle, nigro-piceous, tinged with violaceous. In some specimens this colour is confined to the spine itself, in others it extends inwards for a short distance across the disc.

Several examples were captured by Mr. Champion in the forest region of the low country.

10. **Cephalodonta elongata.**

Anguste elongata, fere parallela, flava, nitida; pedibus (femoribus basi exceptis), scutello antennisque nigris; thorace quam lato longiori; lateribus parallelis, obsolete bisinuatis, medio obsolete angulatis; foveolato-punctato, vitta discoidali lateribusque nigris; elytris parallelis, pone medium vix ampliatis, apice obtuse rotundatis, prope angulum externum leviter sinuatis, angulo ipso obtuso; seriatim punctatis, interspatio quarto subcostato, sexto et octavo minus distincte elevatis; linea laterali, ante medium abbreviata, alteraque suturali, communi, pone medium obsoleta, nigris.

Long. 4 lin.

Hab. PANAMA, Bugaba 800 to 1500 feet (*Champion*).

Antennæ rather more than half the length of the body, filiform, very slightly thickened towards the apex; joints cylindrical. Thorax longer than broad; sides straight and nearly parallel, very slightly bisinuate, obsoletely angulate, the anterior angle acute; disc closely foveolate-punctate. Elytra broader than the thorax; sides parallel, slightly constricted in the middle, very slightly dilated posteriorly, hinder angle obtuse; apical margin obtusely rounded, sinuate just within the outer angle; the base with twelve, the middle disc with ten, and the hinder disc with eleven, regular rows of punctures; fourth, sixth, and eighth interspaces thickened; humeral callus laterally elevated, obtuse.

11. **Cephalodonta erudita.** (Tab. II. fig. 22.)

Anguste elongata, fere parallela; subtus nigra nitida, pectoris medio femoribusque basi flavis; supra subopaca, pallide flavo-fulva, capitis vertice antennisque gracilibus nigris; thorace quam longo vix latiori; lateribus bisinuatis, medio angulatis; crebre rugoso-punctato, vittis duabus, basi convexis, lituram V-simulantibus, nec non lateribus nigris; scutello nigro; elytris parallelis, ad apicem paullo ampliatis; utrisque apice bidentatis, dentibus magnis, compressis; seriatim punctatis, interspatio quarto sat valde costato; sutura dimidioque apicali nigris.

Var. A. Abdominis medio et lateribus elytrisque fulvis.

Var. B. Thoracis vittis obliquis obsoletis, pedibus piceis.

Long. 3⅓ lin.

Hab. Nicaragua, Chontales (*Belt*); Panama, Bugaba 800 to 1500 feet, and David in Chiriqui (*Champion*).

The type and var. B are from the State of Panama; the var. A is from Nicaragua.

Front impressed with an oblong fovea. Antennæ nearly three fourths the length of the body, slender, filiform; joints obsoletely compressed, the basal one short, the second, third, and fourth nearly equal in length, each one half longer than the first. Thorax not longer than broad; sides nearly parallel, slightly sinuate from the base to the middle, thence sinuate and obliquely converging to the apex, the anterior angle armed with an obtuse tooth; above subcylindrical, slightly depressed transversely at the base, closely and coarsely punctured. Scutellum subquadrate. Elytra parallel, slightly dilated towards the posterior angle; apex of each elytron armed with two large flattened teeth—one acute at the posterior angle, its apex looking directly backwards, the other irregular, placed near the suture; each elytron at the extreme base with eleven, on the rest of the surface with ten, irregular rows of punctures; fourth interspace from the suture costate; humeral callus flattened above, laterally produced, its apex acute.

12. **Cephalodonta proxima.** (Tab. II. fig. 23.)

Anguste elongata, fere parallela; subtus nigra, nitida, pectoris medio coxisque rufo-piceis, femoribus basi flavis; supra subopaca, capite nigro, antennis perfoliatis apice, facieque inferiori fulvis, vertice oreque piceis; thorace quam lato vix longiori; lateribus bisinuatis, medio leviter angulatis; crebre rugoso-punctato, vitta discoidali lateribusque nigris; scutello nigro; elytris parallelis, ad apicem paullo ampliatis, utrisque apice bidentatis, dentibus magnis, compressis; seriatim punctatis, interspatio quarto sat valde costato; fulvis, dimidio postico suturaque nigris; pedibus elongatis.

Var. A. Thoracis vitta ad apicem abbreviata, elytris rufo-fulvis, sutura nigra, antennis apice piceis.

Long. 3½ lin.

Hab. Nicaragua, Chontales (*Belt*, type); Panama, Volcan de Chiriqui 2500 to 4000 feet (*Champion*, var. A).

Head sculptured as in *C. erudita*. Antennæ three fourths the length of the body; the two lower joints short, equal, the third to the seventh compressed and dilated, perfoliate, the third longer than the preceding two united, fourth and fifth each shorter than the third, equal. Thorax rather longer than broad; sides slightly converging from the base

to the apex, bisinuate, distinctly angulate; upper surface closely rugose-punctate, obsoletely torulose on the sides and apex. Elytra as in *C. erudita*.

Very nearly allied to *C. erudita* and found at the same localities; it is possibly the male of that species. I have thought it well, however, to consider it distinct, chiefly owing to the different form of the discoidal vitta on the thorax, and also to the different relative lengths of the three lower joints of the antennæ.

13. **Cephalodonta antennata.** (Tab. II. fig. 25.)

Elongata, dorso subdepressa, fulva, nitida; pectoris lateribus, abdomine, femoribus posticis quatuor antennisque piceis, harum articulis intermediis compressis; thorace subconico, lateribus pone medium subangulatis, anguste piceo marginatis, disco crebre foveolato-punctato, pone medium excavato; elytris subparallelis, apicem versus leviter ampliatis, apice obtuse truncatis; angulo postico in spinam subtrigonatam, acutam, postice piceo marginatam, lateraliter producto; regulariter punctato-striatis, punctis piceis, interspatio quarto costato; pedibus sat elongatis.

Long. 4 lin.

Hab. Panama, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Vertex smooth, impunctate; front impressed with a few deep punctures, the medial line with a longitudinal groove. Antennæ more than half the length of the body; the two lower joints cylindrical, the basal one short, the second slightly longer, the third to the seventh compressed, quadrilateral, the third and fourth nearly equal, each longer than the two lower ones united, the fifth to the seventh gradually decreasing in length; four upper joints cylindrical, closely clothed with adpressed hairs. Thorax not broader than long; sides nearly parallel at the base, obtusely angulate behind the middle, thence converging and sinuate to the apex, and the anterior angle armed with an oblique, subacute, setiferous tooth; above transversely convex, broadly excavated on the hinder disc, closely covered with large foveolate punctures. Elytra broader than the thorax; sides nearly parallel, slightly enlarged towards the hinder angle [the latter dilated laterally into a triangular spinose process, the apex of which is produced directly backwards, its outer margin being convex, and its hinder one concave], irregularly serrulate, and edged with nigro-piceous; each elytron with ten, at the extreme base with eleven, rows of large deep punctures; the fourth interspace from the suture costate.

14. **Cephalodonta javeti.** (Tab. II. fig. 24.)

Cephalodonta javeti, Baly, Cat. Hispidæ, p. 160[1].

Var. A. Elytris totis rufis.

Hab. Mexico, San Andres, Tuxtla[1] (*Sallé*); Guatemala, Purula, Senahu, and Sinanja in Vera Paz (type and var. A., *Champion*).

In the specimens from Guatemala the black colour occupies the hinder half of the elytra, the anterior half of the suture being also black.

15. **Cephalodonta obscurovittata.**

Elongata, dorso subdepressa, flavo-fulva, nitida, pleuris anguste piceis; antennis gracilibus, apice pallide-piceis; oculis nigris; thorace transverso, lateribus vix pone medium angulatis, dorso cylindrico, sat crebre punctato; elytris parallelis, ad apicem vix ampliatis, apice obtuse rotundatis, angulo externo spina compressa, retrorsum spectante, armatis; punctato-striatis, sutura, nec non interspatio quarto, costatis; callo humerali lateraliter producto, acuto; vitta subsuturali alteraque submarginali, a basi apicem versus extensis, postice fere obsoletis, metallico-violaceis.
Long. 4 lin.

Hab. NICARAGUA, Chontales (*Belt, Janson*).

Front smooth, impressed with a longitudinal groove; eyes black. Antennæ slender, filiform, very slightly thickened at the apex; joints cylindrical, the second more than twice the length of the first, the third rather shorter than the second. Thorax broader than long; sides straight and parallel at the base, angulate behind the middle, thence obliquely converging to the apex, the anterior angle armed with a stout oblique tooth; upper surface transversely convex, excavated transversely on the hinder disc, impressed with large foveolate punctures, crowded on the sides, less closely placed on the middle disc. Elytra broader than the thorax; parallel, slightly dilated near the hinder angle, the latter armed with an acute flattened spine, the apex of which is produced directly backwards; disc of each elytron with ten rows of large deep punctures; the suture, and the fourth interspace, costate; humeral callus laterally produced, acute; the two discoidal vittæ will in a series of specimens probably be found to vary greatly both in extent and depth of colouring: in the two individuals before me the submarginal one is distinct from the basal margin to the middle of the disc, where it terminates, whilst the discoidal is only strongly coloured at its extreme base (for the rest of its course, which extends nearly to the apex of the elytron, it is very faint and only visible in certain lights). Legs slender, elongate.

16. **Cephalodonta posticata.**

Subelongata, parallela, apicem versus paullo ampliata, dorso subdepressa, flavo-fulva, nitida; antennis flavis, apice pallide-piceis; oculis nigris; thorace transverso, lateribus pone medium angulatis, disco transversim convexo, crebre foveolato-punctato; elytris ante medium parallelis, ad apicem paullo ampliatis, apice obtuse rotundatis, angulo postico in laminam compressam trigonatam, apice acutam, producto; sat profunde seriatim punctatis, sutura nec non interspatiis secundo et quarto elevatis; callo humerali lateraliter producto, acuto; vitta submarginali, a basi ad fere medium extensa, basi ampliata et ad marginem adfixa, calli humeralis apicem amplectente, altera prope scutellum, brevi, fasciaque supra spinam posticam posita, intus ad disci medium extensa, metallico-violaceis; pedibus gracilibus, elongatis.
Long. 3½ lin.

Hab. PANAMA, Bugaba (*Champion*).

A single specimen. Head and antennæ as in *C. obscurovittata*; the thorax more transverse, its disc less deeply impressed at the base, and more closely punctured on the middle than in that species. Elytra broader in proportion to their length than in *C. obscurovittata*; the posterior angle produced laterally into a flattened triangular

process, the outer margin of which is convex and the hinder one concave, its apex very acute and produced directly backwards; the apical margin obtuse; the disc with ten, the extreme base with eleven, rows of punctures; the suture, together with the second and fourth interspaces, thickened and subcostate; humeral callus laterally produced, acute; the submarginal vitta, which extends considerably beyond the middle of the elytron, is dilated at its base, and covers both the apex of the humeral callus and the humeral margin; the transverse stripe commences at the outer edge of the posterior angle, runs along its hinder border, and extends inwards as far as the middle of the disc.

17. **Cephalodonta subparallela.**

Elongata, subtus piceo-nigra, nitida; capite inferiori, pectoris medio, coxis, femorum dimidio basali tarsisque, fulvis, piceo tinctis; supra fulva, scutello capiteque nigris, hoc utrinque piceo-fulvo vittato; antennis elongatis, articulis intermediis compressis, paullo dilatatis; thorace quam lato vix longiori, subconico, lateribus rectis, leviter bisinuatis, anguste nigro marginatis, disco rude et irregulariter foveolato-punctato, vitta lata discoidali nigra; elytris parallelis, pone medium vix angulatis, apice obtuse rotundato, angulo postico spina acuta, retrorsum producta, armato; seriatim punctatis, linea brevi humerali vittaque suturali, a basi ad medium extensa, postice attenuata, nigro ornatis.

Long. $2\frac{1}{3}$–$3\frac{1}{3}$ lin.

Hab. PANAMA, Volcan de Chiriqui 2000 to 4000 feet (*Champion*).

Vertex and front impunctate, the upper portion of the latter impressed with a fine longitudinal groove; the interantennal space with a short tooth; either side of the vertex with a broad piceo-fulvous patch, which extends downwards along the inner orbit of the eye. Antennæ three fourths the length of the body, slender; the third to the seventh joints compressed, moderately dilated, the two lower ones short, nearly equal, the third longer than the preceding two united, the fourth rather shorter, the fifth, sixth, and seventh gradually decreasing both in length and breadth. Thorax rather longer than broad; sides straight, bisinuate, slightly but distinctly converging from the base to the apex; the hinder angle laterally produced, acute; the anterior angle armed with an oblique obtuse tooth; upper surface transversely convex, slightly flattened and excavated on the hinder disc, closely and strongly variolose-punctate, the puncturing on the sides irregular and much coarser than on the middle; a space immediately behind the anterior margin free from punctures. Elytra convex, broader than the thorax, parallel before the middle, very slightly dilated posteriorly, the lateral margin entire; apex obtusely rounded, its margin obsoletely serrulate; posterior angle armed with a stout acute tooth, the apex of which is directed backwards; humeral callus distinct, obtuse, not laterally produced; each elytron at its base with eleven, the rest of its surface with ten, longitudinal rows of large deeply impressed punctures, which cover the whole surface. Legs slender, elongate; basal halves of all the femora fulvous.

18. **Cephalodonta abbreviata.**

Elongata, postice vix ampliata, nitida, subtus piceo-nigra; pectoris medio, thoracis plaga laterali, abdominis basi, coxis anticis quatuor femoribusque basi, flavo-fulvis; supra flava, frontis macula, antennis, thoracis

lateribus angustis vittaque discoidali, scutello, elytrorumque vittis tribus, a basi fere ad medium extensis, nigris; antennis filiformibus, articulis cylindricis; thorace punctis magnis rotundatis irregulariter dispositis fortiter impresso, lateribus vix pone medium angulatis; elytris ante medium parallelis, postice leviter ampliatis, apice obtuse rotundatis; angulo postico spina acuta retrorsum spectante armato; fortiter punctato-striatis, interspatio quarto modice costato.

Long. 4 lin.

Hab. PANAMA, Bugaba 800 to 1500 feet (*Champion*).

Vertex and front smooth, impunctate. Antennæ filiform; joints cylindrical, the basal one short, the second to the fifth nearly equal in length, each twice the length of the first, the sixth to the tenth rather shorter (the terminal joint is missing in the single specimen before me). Thorax rather broader than long; the sides straight and slightly diverging from the base to just behind the middle, thence obliquely converging and feebly sinuate to the apex, the anterior angle armed with a short oblique tooth; disc slightly excavated behind the middle, impressed with large round punctures, placed irregularly over the surface. Elytra parallel before the middle, slightly dilated posteriorly, hinder angle armed with a stout acute tooth; apical margin obtusely rounded, entire; upper surface flattened along the suture, convex on the sides; humeral callus laterally produced, acute; each elytron with ten, at the base with eleven, rows of large deeply impressed punctures; fourth interspace subcostate; the black vittæ are arranged as follows—one sutural, the others (one on either side) sublateral and covering the outer ridge of the humeral callus.

19. **Cephalodonta scherzeri.**

Cephalodonta scherzeri, Baly, Cat. Hispidæ, p. 157[1].

Var. A (*mas*). Elytrorum apice, plagis irregularibus tribus a basi ad medium extensis, suturaque angusta nigris.
Var. B (*mas*). Elytris apice nigris.

Hab. GUATEMALA, Cordilleras[1] (*Scherzer*); NICARAGUA, Chontales (*Belt*, var. B); PANAMA, Caldera, Bugaba, David, Volcan de Chiriqui 2500 to 4000 feet (*Champion*, type and var. A).

A specimen in my collection is labelled "Amazons," but I have reason to believe this locality to be wrong. The male in this species has the thorax broader, with its sides more distinctly angulate

Mr. Champion informs me that this species is found in dry places in the thinly wooded savanna country of the "tierra caliente."

20. **Cephalodonta ampliata.**

Elongata, postice valde ampliata, depressa; subtus nitida, nigro-picea; pectoris medio femoribusque basi flavis, abdomine piceo, flavo variegato; supra subopaca, flava; antennis compressis, verticis macula, thoracis vitta discoidali scutelloque, nigris; thorace quam longo vix latiori, crebre punctato, lateribus ante medium sinuatis; elytris cuneiformibus, a basi apicem versus valde ampliatis, apice rotundatis, ad suturam subquadrato-emarginatis, angulo suturali dente acuto armato; angulo postico obsoleto; striato-punctatis, sutura et interspatio quarto costatis; limbo ampliato, sulcis numerosis transversis impresso; vitta brevi

submarginali baseos, fascia interrupta, vix ante medium posita, apiceque late (hoc interdum metallico-tincto) nigris.
***Var.* A. Elytrorum fascia obsoleta.**
Long. 4⅓–5 lin.

Hab. NICARAGUA, Chontales (*Belt*).

Body elongate, broadly wedge-shaped. Front stained with piceous, rugose-punctate, armed between the antennæ with a minute tooth. Antennæ nearly three fourths the length of the body, slender; the third to the seventh joints compressed, cristate. Thorax scarcely broader than long at the base; sides nearly straight behind the middle, converging and sinuate between the latter and the apex, the apical angle armed with an acute tooth; transversely convex, slightly but distinctly excavated on the hinder disc, closely and coarsely punctured. Scutellum narrowly oblong, truncate, sinuate on the sides. Elytra rather broader than the base of the thorax, broadly wedge-shaped; the outer limb broadly dilated, the dilatation commencing at the shoulder and regularly increasing to the posterior angle, the latter broadly rounded, the angle itself obsolete; apices rounded, conjointly quadrate-emarginate at the suture, the sutural angle armed with a stout acute tooth; lateral margin entire, the apical margin finely serrulate; the dilated limb impressed with a number of deep transverse grooves, their direction following the curvature of the outer border, on the sides being horizontal, those near the hinder angle oblique, and those at the apex perpendicular; each elytron with ten, at the extreme base with eleven, rows of deep punctures; the sutural margin and the fourth interspace costate. Legs slender, elongate.

21. Cephalodonta fraterna.

Elongata, postice valde ampliata, depressa; subtus nitida, nigra; pectoris medio, femoribus, nec non abdominis basi, fulvis; supra subnitida, fulva, capitis vertice antennisque compressis nigris; thorace subconico, lateribus bisinuatis, anguste piceo marginatis, rugoso-punctato, vitta discoidali nigra; elytris cuneiformibus; lateribus a basi apicem versus valde ampliatis, apice rotundatis, ad suturam late conjunctim emarginatis; angulo suturali acuto, angulo postico dente brevi armato; fortiter seriatim punctatis, sutura interspatioque quarto costatis; limbo ampliato, sulcis numerosis transversis impresso; utrisque vitta brevi submarginali baseos nigra; apice late purpureo-nigro, metallico micanti.
Long. 4½ lin.

Hab. NICARAGUA, Chontales (*Belt*).

So similar in form, sculpture, and coloration to *C. ampliata* that it is only necessary to point out the distinctive differences:—the thorax is narrower, rather more conical, and distinctly bisinuate on the sides; the elytra are more broadly dilated behind the middle, the posterior angle being armed with a small tooth, the apical margin is more broadly emarginate at the suture, and the sutural angle, although acute, is not produced into a distinct tooth.

22. Cephalodonta ferox. (Tab. III. fig. 1.)

Elongata, subparallela, fulva, nitida; pectoris lateribus, abdomine, pedibus elongatis antennisque, nigris; thorace

subconico, sat crebre foveolato-punctato, lateribus leviter angulatis; elytris fere parallelis, postice vix ampliatis, apice obtuse rotundatis, angulo postico dente acuto, ad apicem nigro, armato; seriatim punctatis, interspatio quarto modice costato, callo humerali apice spina valida elongata, lateraliter producta, nigra, armato.

Long. 3½ lin.

Hab. NICARAGUA, Chontales (*Belt*).

Antennæ slender, filiform, more than half the length of the body; two lower joints subovate, equal, the third nearly as long as the preceding two united. Thorax not broader than long, subconic; sides straight and parallel from the base to the middle, thence obliquely converging and sinuate to the apex, the anterior angle produced anteriorly into a strong subacute tooth; upper surface subcylindrical, transversely grooved at the base, closely foveolate-punctate. Elytra parallel, slightly dilated posteriorly; apical margin obtusely rounded, entire, the posterior angle armed with a strong flattened acute tooth, the apex of which looks directly backwards; upper surface with ten, at the extreme base with eleven, regular rows of punctures; fourth interspace from the suture moderately costate; humeral callus laterally produced, and armed with a very long acute black spine, the apex of which extends directly outwards.

The long humeral spine renders this species one of the most remarkable of the whole genus. Unfortunately both the specimens before me are very imperfect.

Section II. *Basal segment of the ligula arising from the dorsal surface of the mentum.*

Section 1. *Antennæ* 10–11*-jointed, the five upper joints distinctly separable from each other.*

† *Interocular space not produced anteriorly; antennæ* 11*-jointed.*

CHARISTENA.

Charistena, Baly, Trans. Ent. Soc. 1864, p. 253; Horn, Trans. Amer. Ent. Soc. 1883, p. 298.

The above genus, established by myself for the reception of a small group of species from Northern and Central America, has been united by Von Harold, in his Catalogue, with *Chalepus*; it is, however, distinctly separated by the non-prominent interocular space, and, as pointed out by Dr. Chapuis, by the curved intermediate tibiæ.

1. Charistena bellula.

Charistena bellula, Baly, Trans. Ent. Soc. 1864, p. 253 [1].

Hab. MEXICO, Playa Vicente (*Sallé*).—COLOMBIA, Bogotá, Magdalena River [1] (*coll. Baly*, type).

2. Charistena elegantula.

Charistena elegantula, Baly, Trans. Ent. Soc. 1864, p. 254 [1].

Hab. GUATEMALA (type *in coll. Baly ex coll. Laferté*); PANAMA, David, Taboga Island (*Champion*).—COLOMBIA [1].

3. Charistena trilineata.

Charistena trilineata, Baly, Trans. Ent. Soc. 1864, p. 255 [1].

Hab. MEXICO [1] (types *in coll. Chevr. and Baly*).

4. Charistena pilatei.

Charistena pilatei, Baly, Trans. Ent. Soc. 1864, p. 254 [1].

Hab. MEXICO, Teapa [1] (*coll. Baly*, type); GUATEMALA, Chiacam in Vera Paz (*Champion*).

5. Charistena championi.

Angustata, subcylindrica; subtus cum capite nigra, pedibus flavis, antennis basi tarsisque pallide-piceis; supra flava, scutello nigro; thorace subcylindrico, profunde et crebre punctato, lateribus plaga margineque apicali nigris; elytris parallelis, apice rotundatis, minute serrulatis; utrisque octo-seriato-punctatis, interspatiis secundo, quarto sextoque, nec non sutura, modice costatis; maculis communibus duabus, una ad basin altera vix ante apicem positis, vittaque brevi submarginali baseos, nigris, æneo tinctis.

Var. A. Elytrorum macula subapicali obsoleta.

Long. 1⅓ lin.

Hab. GUATEMALA, Zapote, Tamahu in Vera Paz (*Champion*).

Head tinged with æneous; vertex and front impressed with a number of longitudinal grooves. Antennæ slightly longer than the head and thorax, robust, thickened towards the apex; joints cylindrical, the five upper ones forming an ill-defined elongate club; six lower joints rufo-piceous, the rest black. Thorax subcylindrical, rather broader than long; sides obtusely angulate, straight and parallel behind the middle, obliquely converging anteriorly; upper surface deeply and closely punctured; a patch on the lateral margin, together with the extreme apex, black. Elytra parallel, regularly rounded at the apex, faintly sinuate at the sutural angle, distinctly serrulate; each elytron with eight, at the extreme base with nine, rows of large deep punctures; the second, fourth, and sixth interspaces moderately costate, the suture also thickened.

6. Charistena funesta.

Angustata, subcylindrica, nigra, nitida, dorso æneo tincta; thorace profunde foveolato-punctato, disco anteriori fere impunctato; elytris parallelis, tricostatis, interspatiis profunde biseriato-punctatis.

Long. 2 lin.

Hab. MEXICO, Orizaba (*Sallé*); GUATEMALA, San Gerónimo (*Champion*).

Head very finely granulose, front impressed between the eyes with a faint elongate fovea. Antennæ equal in length to the head and thorax; five terminal joints thickened, forming a narrow elongate club. Thorax longer than broad; sides parallel, very slightly angulate; subcylindrical, excavated at the base just in front of the scutellum,

impressed on the sides and at the base with large round punctures; anterior disc nearly impunctate. Elytra broader than the thorax, parallel on the sides; lateral margin entire, the apical margin rounded, emarginate at the suture, finely serrulate; cylindrical, slightly flattened along the suture; each elytron with eight, at the base with nine, rows of deeply impressed large round punctures; second, fourth, and sixth interspaces costate.

7. **Charistena perspicua.** (Tab. III. fig. 2.)

Charistena perspicua, Horn, Trans. Amer. Ent. Soc. 1883, p. 298[1].

Filiformis, subcylindrica, nigra, nitida, pedibus cyaneo tinctis; supra cyanea, antennis nigris; thorace quam lato longiori, fortiter crebre punctato; elytris parallelis, octo-seriato-punctatis, sutura nec non interspatiis secundo, quarto et sexto costatis.

Var. A. Femoribus intermediis basi rufo-fulvis.

Long. 2–2½ lin.

Hab. North America, Arizona and New Mexico [1] (*Horn*).—Mexico, Northern Sonora (*Morrison*).

Vertex smooth, impunctate; front trisulcate; third joint of the antennæ longer than the second, five upper joints slightly thickened. Thorax distinctly longer than broad; sides obtusely rounded; subcylindrical, transversely depressed on the hinder disc; deeply and closely punctured, the punctures larger and stronger on the middle; a space immediately behind the anterior margin nearly free from punctures. Elytra broader than the thorax, parallel on the sides, regularly rounded at the apex, apical margin minutely serrulate; upper surface subcylindrical; each elytron with eight, at the extreme base with nine, rows of deeply impressed punctures; the suture, together with the second, fourth, and sixth interspaces, costate. Mesofemora with a distinct row of teeth beneath.

The present species may (according to Dr. Horn) be known from *C. nigrita*, Oliv., by the relatively greater length of the third joint of its antennæ, by its larger size, by the different coloration of the upper surface of the body, and lastly by the stronger teeth on the under surface of the mesofemora; from *C. funesta* it is separated by the presence of these teeth, by the different punctuation of its thorax, and by its strong metallic tint.

†† *Interocular space anteriorly produced.*

* *Antennæ* 10-*jointed.*

PARACHALEPUS.

Caput inter oculos valde productum; antennis 10-articulatis; ore ut in *Chalepo*. Corpus elongatum.

The above genus agrees with *Chalepus* in all essential characters with one exception—the antennæ are ten- instead of eleven-jointed. I only know a single species, *P. brevicornis* from Mexico, and of that only a single specimen.

1. **Parachalepus brevicornis.** (Tab. III. fig. 3.)

Elongatus, parallelus; subtus subnitidus, niger, purpureo tinctus; pectoris medio, abdominis lateribus femorumque basi, fulvis; supra fulvo-flavus, opacus, antennis elytrorumque apice nigris; thorace transverso, lateribus sat profunde bisinuatis, crebre rugoso-punctato, lateribus vittaque discoidali nigro-piceis; scutello piceo; elytris subelongatis, fere parallelis, serrulatis, apice obtuse rotundatis; utrisque decem-seriato-punctatis; interspatiis secundo, quarto nec non octavo, costatis, punctis inter interspatia quartum et octavum ante medium triseriatis; vitta brevi suturali baseos picea.

Long. 2⅔ lin.

Hab. Mexico, Cordova (*Höge*).

Head very strongly produced between the eyes, truncate anteriorly. Antennæ not longer than the head and thorax, robust, slightly thickened towards the apex; joints cylindrical, first very short, moniliform, second to the fourth nearly equal, each rather longer than the basal one, the sixth to the ninth short, broader than long, the tenth or apical joint ovate, subacute. Thorax transverse; sides converging from the base to the apex, bisinuate; disc transversely convex, flattened behind, coarsely and closely rugose-punctate. Scutellum quadrate. Elytra broader than the thorax; sides subparallel, apex obtusely rounded; outer margin distinctly and rather coarsely serrulate, the apical serratures finer than the lateral ones; each elytron before the middle with nine, at the extreme base and on the hinder disc with ten, rows of deep punctures; the second, fourth, and eighth interspaces costate, the punctures between the middle and outer costæ triseriate on the anterior and quadriseriate on the hinder disc; the sixth interspace elevated at the base and apex, the suture also thickened.

** *Antennæ 11-jointed.*

CHALEPUS.

Chalepus, Thunberg, Götting. Gelehrt. Anzeig. 1805, p. 282.
Odontota, Chapuis, Gen. des Coléopt. xi. p. 318; Horn, Trans. Amer. Ent. Soc. 1883, p. 294.

Sixty-four species of this genus are contained in the present work; of this number no less than fifty-eight are characterized for the first time. *Chalepus* is probably the most numerous in species of any genus of the family, although up to recently a very large majority of them have remained undescribed in collections. Forty-three species are enumerated in Von Harold's Catalogue. In 1877 the late Dr. Chapuis (*cf.* Trans. Ent. Soc. de Belg. xx. pp. 5 *et seq.*) gave brief diagnoses of upwards of sixty additional ones; unfortunately, in many cases, his descriptions are so brief that it is very difficult to work out the species; he has, however, divided the genus into sections, which, with some alterations, I have followed here *.

* Dr. Chapuis has founded his sectional divisions on the number of rows of punctures and of the costæ on the elytra. Many of the species possess a short additional row of punctures placed at the base next the suture, the presence or absence of which I have found of great use in subdividing the genus. A very great number of species have the interstices between the punctures more or less thickened, forming a fine irregular network between the costæ. I have but rarely mentioned this character in my specific descriptions.

The head quarters of the genus will be found to be in Tropical America; a few species inhabit the Southern United States, and one or two are found in the Antilles.

Closely allied to *Uroplata*; the species, as a rule, are more simple in form than those of that genus; the antennæ, with a few exceptions, are filiform or subfiliform, and their joints are more or less cylindrical; the apices of the elytra are more regularly rounded, the posterior angle of the latter being rarely produced.

Below is a table of the species:—

TABLE OF SPECIES.

I. Elytra each with 8 rows of punctures.
  1. Apices of the elytra conjointly emarginate at the sutural angle.
    Species 1–2.—*morio, championi.*
  2. Apices of the elytra entire, or only obsoletely sinuate at the sutural angle.
    Species 3–4.—*semilimbatus, suturalis.*

II. Elytra each with 8 rows of punctures, the base with a short additional row next the suture.
  1. Apices of the elytra conjointly emarginate at the sutural angle.
    Species 5.—*congener.*
  2. Apices of the elytra conjointly rounded, the sutural angle entire.
    Species 6–17.—*placidus, opacicollis, saundersi, amicus, terminatus, tibialis, jansoni, pallescens, distinctus, breviceps, roseus, fryi.*

III. Elytra each at the base with 8, at the apex with 9, rows of punctures.
  1. Apices of the elytra sinuate before reaching the sutural angle, the latter entire.
    Species 18.—*diversipes.*
  2. Apices of the elytra conjointly rounded, the sutural angle entire.
    Species 19.—*instabilis.*

IV. Elytra each with 10, about the middle portion with 8 or 9, rows of punctures.
    Species 20–34.—*marmoratus, subapicalis, vittaticollis, viridanus, productus, californicus, contiguus, fraternus, pascoei, amabilis, digressus, nigripictus, vicinalis, consanguineus, bellulus.*

V. Elytra each with 10 regular rows of punctures.
  1. Second and eighth interspaces costate, entire.
    Species 35–37.—*hæmatoderus, rufithorax, sanguinosus.*
  2. Second, fourth, and eighth interspaces costate, entire.
    Species 38–54.—*chromaticus, propinquus, clypeatus, horni, subparallelus, angulosus, simillatus, subhumeralis, amiculus, marginatus, lateralis, generosus, hepburni, posticatus, suspiciosus, alienus, anchora.*

VI. Elytra each with 10 rows of punctures, the base with a short additional row next the suture.
  A. Margin of the elytra serrulate.
  1. Sutural angles of the elytra entire.
    a. Second, fourth, and eighth interspaces costate, entire.
      Species 55–57.—*acuticornis, contubernalis, chapuisi.*
    b. Second and eighth interspaces costate, entire.
      Species 58.—*waterhousei.*
  2. Sutural angles of the elytra conjointly emarginate.
      Species 59–63.—*amplipennis, deyrollei, omogerus, univittatus, palmeri.*
  B. Margin of the elytra entire, not serrulate.
      Species 64.—*signaticollis.*

I. *Elytra each with eight rows of punctures.*

1. *Apices of the elytra conjointly emarginate at the sutural angle.*

1. Chalepus morio. (Tab. III. fig. 4.)

Hispa morio, Fabr. Syst. t. 2. f. 60.

Sat elongatus, niger, subtus nitidus, supra subnitidus; thorace transverso, subconico, disco utrinque calloso, medio rude foveolato-punctato; elytris parallelis, ad suturam late subquadrato-emarginatis, utrisque octo-seriato-punctatis, interstitiis granulosis, planis, interspatio secundo costato.
Long. 2½ lin.

Hab. Mexico, Toluca, Guanajuato (*Sallé*).

Head moderately produced between the eyes; vertex and front trisulcate. Antennæ very slightly thickened towards the apex; two lower joints equal in length, the third as long as the preceding two united. Thorax transverse, subconic; sides nearly straight, converging from the base to the apex; disc with a longitudinal callosity on either side, closely and coarsely punctured. Elytra broader than the thorax, parallel, broadly sub-quadrate-emarginate at the suture, the sutural angle acute; lateral margin obsoletely, the apical one distinctly, serrulate; each elytron with eight rows of punctures, the second interspace, together with the suture, costate; interstices between the punctures granulose, plane.

The original type of *Hispa morio*, Fabr., is in all probability lost. I have therefore, following Dr. Chapuis, adopted the Fabrician name, by which this species is known in most collections; the diagnosis given by Fabricius is extremely brief, and the locality given merely as South America.

2. Chalepus championi.

Elongatus, niger, nitidus; pectore femoribusque flavis, his ad apicem nigro maculatis; capite fulvo trimaculato; antennis ad corporis longitudinem fere æqualibus, articulis intermediis compressis, dorso modice cristatis; thorace crebre foveolato-punctato, utrinque late flavo-fulvo vittato; elytris subparallelis, apicem versus leviter ampliatis, apice rotundatis, ad suturam late quadrato-emarginatis; lateribus tenuiter, apice magis fortiter, serrulatis; modice convexis, utrisque octo-seriato-punctatis, interspatiis alternis modice costatis; flavo-fulvis, vitta suturali plagaque magna apicali nigris.
Long. 2½ lin.

Hab. Panama, Volcan de Chiriqui (*Champion*).

Front rather strongly produced between the eyes, irregularly grooved. Vertex smooth; a patch on either side of the neck, together with one on the front, extending downwards to the base of the antennæ, fulvous. Antennæ nearly four fifths the length of the body; first and second joints subovate, equal, the third and the following three compressed, cristate, the third equal in length to the first and second united, the sixth and following ones cylindrical. Thorax nearly one fourth broader than long at the base, slightly converging towards the apex, sides subangulate, anterior angle armed with a short oblique tooth; upper surface cylindrical on the sides, flattened on the disc, closely

covered with large, round, foveolate punctures; medial line with a short longitudinal groove. Elytra subparallel, slightly increasing in width towards the apex; lateral margin finely serrulate; the apical margin dilated, regularly rounded, broadly quadrate-emarginate at the sutural angle, more coarsely serrulate than the sides; moderately convex, slightly flattened along the suture; each elytron with eight longitudinal rows of large, deeply impressed punctures; the second, fourth, and sixth interspaces, together with the suture, costate.

2. *Apices of the elytra entire, or only obsoletely sinuate at the sutural angle.*

3. Chalepus semilimbatus.

Elongatus, angustatus, parallelus, flavus, nitidus; oculorum orbitis, antennis pedibusque (femoribus basi exceptis) nigris; thorace subcylindrico, fortiter punctato, lateribus, pone medium fere rectis, ante medium constrictis; elytris parallelis, apice rotundatis, minute sed distincte serrulatis; utrisque octo-seriato-punctatis, stria sexta medio obsoleta; interspatiis alternis costatis; lateribus anguste nigro-æneo marginatis.

Long. 2½ lin.

Hab. Mexico, Vera Cruz (*Sallé*).

Vertex and front impressed with a deep longitudinal fovea; interocular space moderately produced. Antennæ about one third the length of the body, slightly but distinctly thickened towards the apex; joints cylindrical. Thorax transverse; sides rounded, nearly straight and parallel behind the middle, thence rounded and converging towards the apex, deeply sinuate behind the anterior angle, the latter produced laterally into a short, acute tooth; transversely convex, rather deeply excavated in front of the scutellum, deeply and rather closely punctured. Elytra subelongate, parallel, obtusely rounded at the apex, finely serrulate; each elytron with eight rows of deep punctures, the sixth row obsolete on the middle disc; second and fourth interspaces broadly, the sixth less strongly, costate; lateral margin narrowly edged with blackish æneous.

4. Chalepus suturalis.

Anguste oblongus, subtus niger, nitidus; supra rufo-fulvus, minus nitidus; capite nitido elytrorumque linea suturali nigro-æneis, scutello antennisque nigris; thorace transverso, rude et crebre punctato, lateribus angulatis; elytris oblongis, parallelis, apice rotundatis, utrisque octo-seriato-punctatis, interspatiis alternis vix elevatis.

Long. 2 lin.

Hab. Guatemala, Dueñas (*Champion*).

Vertex smooth, front trisulcate; interocular space slightly produced. Antennæ nearly half the length of the body, robust, slightly thickened towards the apex; joints cylindrical. Thorax transverse; sides angulate, straight and parallel from the base to the middle, thence obliquely converging to the apex, the anterior angle acute; disc transversely convex, slightly excavated behind the middle, coarsely rugose-punctate. Elytra narrowly oblong; sides parallel, obtusely rounded at the apex; lateral margin

obsoletely, the apical margin more distinctly, serrulate; each elytron with eight regular rows of punctures, their alternate interspaces slightly elevated.

II. *Elytra each with eight rows of punctures, the base with a short additional row, next the suture.*

1. *Apices of the elytra conjointly emarginate at the sutural angle.*

5. **Chalepus congener.** (Tab. III. fig. 5.)

Elongatus, subparallelus, niger; subtus nitidus, femoribus basi fulvis; supra subopacus, macula frontali thoraceque fulvis, hoc subconico, crebre punctato, lateribus vittaque lata discoidali nigris; elytris parallelis, ad apicem vix ampliatis, apice rotundatis, ad suturam conjunctim angulato-emarginatis, lateribus pone medium obsolete, apice distincte, serrulatis; utrisque octo- basi nono-seriato-punctatis, interspatio secundo sat valde elevato, quarto, sexto nec non sutura, modice costatis; plaga magna, a basi ad vix pone medium extensa, postice attenuata, flava ornatis.
Long. $2\frac{1}{2}$–$2\frac{3}{4}$ lin.

Hab. PANAMA, Bugaba (*Champion*).

Vertex smooth, impunctate; front broadly sulcate, piceo-fulvous; interocular space rather strongly produced, obtuse. Antennæ less than half the length of the body, robust, subfusiform, attenuated at the base and apex; two lower joints stout, equal, the third nearly as long as the preceding two united. Thorax slightly broader than long; sides subangulate, straight and nearly parallel from the base to the middle, thence obliquely converging towards the apex; transversely convex, depressed behind the middle; coarsely and closely punctured. Elytra broader than the thorax; sides parallel, slightly dilated towards the apex, the latter rounded, conjointly subangulate-emarginate at the suture; each elytron with eight, at the extreme base with nine, rows of large, deep punctures; the second interspace rather strongly, and the suture together with the fourth and sixth interspaces moderately, costate.

2. *Apices of the elytra conjointly rounded, the sutural angle entire.*

6. **Chalepus placidus.** (Tab. III. fig. 6.)

Elongatus, parallelus, subtus cum antennis niger, nitidus; pectoris medio, abdominis femorumque basi fulvis; supra fulvus, subnitidus; scutello elytrorumque vitta brevi communi, infra scutello posita, nigro-piceis; thorace quam longo paullo latiori, subcylindrico, basi ante scutellum transversim excavato, rude et crebre foveolato-punctato, lateribus angulatis vittaque discoidali, antice abbreviata, nigro-piceis; elytris parallelis, apice rotundatis, serrulatis, apice acute denticulatis, utrisque octo- basi nono-seriato-punctatis, interspatiis alternis costatis, sutura paullo elevata.
Long. 3 lin.

Hab. GUATEMALA, Chacoj and Teleman (*Champion*).

Head smooth, impunctate; interocular space moderately produced. Antennæ scarcely more than half the length of the body, filiform; two lower joints short, submoniliform, the basal one slightly thickened, third joint nearly twice as long as the second. Thorax

broader than long; sides obtusely angulate, straight and parallel from the base to the middle, thence obliquely converging to the apex, anterior angle armed with an oblique obtuse tooth; subcylindrical, broadly flattened and excavated on the hinder disc, closely covered with large, irregular, foveolate punctures; an irregular longitudinal space on the middle disc, commencing in front of the transverse depression, and extending anteriorly nearly to the apical margin, shining, impunctate; its medial line impressed with a fine longitudinal groove; a longitudinal vitta, abbreviated anteriorly, together with the extreme edge of the lateral margin, nigro-piceous. Scutellum oblong-quadrate; sides distinctly, the apex faintly, emarginate. Elytra parallel, serrulate on the sides, the apex rounded and acutely denticulate; each elytron with eight, at the extreme base with nine, rows of punctures; tricostate, the suture also elevated.

7. **Chalepus opacicollis.**

Elongatus, parallelus, nitidus, subtus niger; thorace (utrinque nigro maculato), pectoris medio abdominisque basi, fulvis; supra fulvus, scutello, collo utrinque antennisque nigris; thorace quam lato vix longiori; lateribus rotundatis, medio obsolete angulatis; opaco, sat profunde punctato, vitta discoidali lateribusque nigris; elytris parallelis, lateribus minute serrulatis; apice regulariter rotundato, magis evidenter et irregulariter serrulato; utrisque octo- basi nono-seriato-punctatis; interspatiis secundo, quarto sextoque costatis.

Long. 3 lin.

Hab. Panama, Bugaba 800 to 1500 feet (*Champion*).

Head smooth, vertex and front faintly impressed with a longitudinal groove; inter-ocular space very slightly produced. Antennæ robust, slightly tapering at the base and apex; first and second joints equal, the third distinctly longer. Thorax scarcely longer than broad; sides rounded, converging in front, obsoletely angulate; convex, transversely impressed on the hinder disc, and again less distinctly so before the middle; opaque, impressed, but not very closely, with large, ill-defined punctures. Elytra elongate, parallel, regularly rounded at the apex; sides finely, the apical margin more strongly and irregularly, serrulate; each elytron with eight, at the extreme base with nine, rows of large, deeply impressed punctures; second, fourth, and sixth interspaces costate, the sixth serrulate.

8. **Chalepus saundersi.**

Elongatus, subtus niger, nitidus; femoribus anticis quatuor macula basali flava ornatis; supra minus nitidus, scutello capiteque nigris, hoc macula frontali sordide-fulva; thorace subcylindrico; lateribus breviter subangulato-rotundatis, basi fere rectis; dorso crebre et fortiter punctato, fulvo, lateribus vittaque lata discoidali nigris; elytris fere parallelis, apicem versus vix ampliatis, apice obtuse rotundatis, minute serrulatis; utrisque octo- basi nono-seriato-punctatis; interspatiis alternis, nec non sutura, modice costatis; fulvis, plaga apicali vittaque suturali nigris.

Var. A. Elytrorum plaga apicali obsoleta.

Long. 2 lin.

Hab. Guatemala, Panima (*Champion*); Panama, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Head smooth; the interocular space rather strongly produced, its apex angulate. Antennæ nearly half the length of the body, filiform, moderately robust, slightly attenuated at the apex; joints cylindrical. Thorax transverse; sides obtusely subangulate-rotundate, nearly straight and parallel behind the middle; subcylindrical, slightly flattened transversely on the hinder disc, strongly and closely punctured. Elytra narrowly oblong; sides straight, slightly diverging from the base towards the hinder angle; apex obtusely rounded, finely serrulate; each elytron with eight, at the extreme base with nine, regular rows of punctures; the second, fourth, and sixth interspaces, together with the suture, moderately costate.

The apical patch on the elytra varies greatly in size; in var. A, from Guatemala, it is entirely obsolete.

9. **Chalepus amicus.** (Tab. III. fig. 7.)

Sat elongatus, subparallelus, niger; subtus nitidus, femoribus basi fulvo maculatis; supra minus nitidus, vertice fronteque fulvis, lævibus; thorace subcylindrico, pone medium transversim excavato, rude punctato, fulvo, vitta lata discoidali lateribusque nigris; elytris fere parallelis, minute serrulatis, utrisque octo-basi nono-seriato-punctatis, interspatiis secundo, quarto sextoque costatis; vitta lata laterali a basi ad ultra medium extensa, postice angusta, linea brevi nigra notata, fulva ornatis.

Long. $1\frac{3}{4}$–2 lin.

Hab. PANAMA, David, Bugaba 800 to 1500 feet (*Champion*).

Vertex and front smooth, impunctate, the latter obsoletely sulcate. Antennæ nearly half the length of the body, filiform, slightly thickened towards the apex; joints cylindrical, the third short, scarcely longer than the second. Thorax broader than long, subcylindrical; sides converging from base to apex, more quickly converging and sinuate before the middle, the latter obtusely rounded, anterior angle acute; disc transversely excavated behind the middle, coarsely and deeply punctured. Elytra nearly parallel, conjointly rounded at the apex, minutely serrulate; each elytron with eight, at the extreme base with nine, regular rows of punctures, the second, fourth, and sixth interspaces costate.

This species may be separated from *C. terminatus* by its longer and narrower form, by its broader thorax, and by the more strongly raised costæ on the elytra; the fulvous apical spot is also absent.

10. **Chalepus terminatus.**

Elongatus, niger, subtus nitidus; abdominis basi, femoribus anticis fere totis, posterioribusque basi, flavis; supra subopacus, capite lævi, fronte breviter trisulcata, facie inter oculos thoraceque fulvis, hoc subconico, crebre punctato, lateribus fasciaque lata discoidali nigris; elytris parallelis, apicem versus obsolete ampliatis, apice obtuse rotundatis, margine ad apicem obsolete serrulatis; utrisque octo- basi nono-seriato-punctatis, interspatiis secundo, quarto sextoque modice costatis; vitta submarginali a basi ad ultra medium extensa, callum humerale amplectente, postice angustata, maculaque apicali, fulvis.

Long. $1\frac{3}{4}$ lin.

Hab. GUATEMALA, Vera Paz (*Champion*); PANAMA, Volcan de Chiriqui 2500 to 4000 feet, Bugaba (*Champion*).

Head smooth, impunctate; front impressed with three short longitudinal grooves; interocular space moderately produced. Antennæ nearly half the length of the body, filiform, rather slender, slightly thickened towards the apex; joints cylindrical, first and second short, equal, slightly thickened. Thorax rather broader than long, subconical; sides converging from base to apex; transversely convex, transversely depressed on the hinder disc, closely punctured; the hinder margin elevated. Elytra broader than the thorax; sides parallel, very slightly enlarged towards the posterior angle; apex obtusely rounded, outer margin nearly entire, obsoletely serrulate behind the middle and at the apex; each elytron with eight, at the extreme base with nine, rows of large, deep punctures; second, fourth, and sixth interspaces moderately costate.

Resembles in coloration *C. congener*, but half the size, and rather less parallel in form, the elytra with an additional row of punctures at the base.

11. **Chalepus tibialis.**

Angustatus, elongatus, subcylindricus; subtus niger, nitidus; femoribus basi, anticis fere totis, tibiis anticis basi, posticis fere totis, pectoris medio abdominisque disco, flavis; supra flavus, subnitidus, scutello capiteque nigris, facie inter oculos flava; thorace transverso, crebre punctato, lateribus vittaque lata discoidali nigris; elytris parallelis, octo- basi nono-seriato-punctatis, tricostatis, linea laterali baseos vittaque suturali nigris; tibiis anticis intus ante apicem spina brevi armatis.

Long. 2 lin.

Hab. Panama, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Head smooth, slightly produced between the eyes. Antennæ nearly half the length of the body, slightly thickened towards the apex; joints cylindrical, the two lower ones short, nearly equal, the third distinctly longer. Thorax broader than long; sides obsoletely angulate, straight and parallel from the base to the middle, thence converging and slightly sinuate to the apex; anterior angle obliquely produced into a distinct subacute tooth; transversely convex, faintly excavated transversely behind the middle, coarsely and closely foveolate-punctate, the punctures rather more distant on the medial line; the lateral margin, together with a broad discoidal vitta, black, the apical margin narrowly edged with piceous. Elytra rather broader than the thorax; sides parallel, very faintly constricted in the middle, obsoletely serrulate; apex regularly rounded, its serratures rather more distinct; each elytron with eight, at the extreme base with nine, rows of punctures; the second, fourth, and sixth interspaces costate.

12. **Chalepus jansoni.**

Subelongatus, subtus cum capite niger, nitidus; pedibus maculaque frontali fulvis; supra fulvus, minus nitidus, scutello nigro; thorace subcylindrico, rude et crebre punctato; elytris anguste oblongis, parallelis, apice rotundatis, margine serrulatis; utrisque octo- basi nono-seriato-punctatis, interspatiis secundo, quarto sextoque nec non sutura modice costatis.

Long. 1½ lin.

Hab. Nicaragua, Chontales (*Janson*).

Vertex finely granulose, front longitudinally grooved; interocular space moderately

produced, obtuse. Antennæ rather longer than the head and thorax, thickened towards the apex; joints cylindrical, the two lower ones slightly thickened, short, equal, the five outer ones forming a slender, ill-defined, elongate club. Thorax broader than long; sides very slightly rounded, nearly straight and parallel behind the middle, slightly converging anteriorly, the apical angle armed with a short obtuse tooth; subcylindrical, obsoletely depressed on the hinder disc, coarsely and closely punctured. Elytra broader than the thorax, parallel, regularly rounded at the apex, outer margin distinctly serrulate; each elytron with eight, at the extreme base with nine, rows of large deep punctures; second, fourth, and sixth interspaces moderately costate, the suture, its extreme base excepted, also thickened.

13. **Chalepus pallescens.**

Subelongatus, subtus cum capite niger, nitidus; thoracis lateribus pedibusque flavis, facie inferiori tarsisque rufo-piceis; supra minus nitidus, sordide-flavus; scutello nigro-piceo, elytris ad apicem maculis parvis piceis sparse notatis; thorace subcylindrico, rude et crebre punctato; elytris oblongis, parallelis, apice rotundatis, ad suturam vix sinuatis, minute serrulatis, dorso deplanatis, utrisque octo- basi nono-seriato-punctatis, interspatiis secundo, quarto sextoque modice costatis.

Long. $1\frac{1}{3}$ lin.

Hab. Panama, Bugaba 800 to 1500 feet (*Champion*).

Vertex minutely granulose, impressed in the medial line with a deep longitudinal groove; interocular space only slightly produced. Antennæ about one third the length of the body; joints cylindrical, the five outer ones distinctly thickened. Thorax subcylindrical, scarcely broader than long; sides slightly rounded, nearly straight and parallel at the base, slightly converging before the middle, anterior angle produced into a small subacute tooth; upper surface faintly impressed transversely at the base, closely covered with large coarse punctures. Elytra oblong, parallel on the sides, obtusely rounded at the apex, faintly sinuate at the suture, the sutural angle armed with a minute tooth; lateral margin minutely and rather closely, apical border more distantly and irregularly, serrulate; each elytron with eight, at the extreme base with nine, rows of punctures, the alternate interspaces moderately costate; towards the apex are a few small, ill-defined piceous spots, which form an irregular band across the surface.

14. **Chalepus distinctus.** (Tab. III. fig. 9.)

Anguste oblongus, nitidus; subtus nigro-piceus, flavo variegatus, thoracis lateribus, femoribus tibiisque flavis; supra flavo-fulvus, antennis, oculis, thoracisque lateribus nigris; thorace subcylindrico, crebre foveolato-punctato; elytris oblongis, apice rotundatis, serrulatis; dorso deplanatis, utrisque octo- basi nono-seriato-punctatis, interspatiis secundo, quarto nec non sexto costatis; nigro-æneis, plaga communi magna irregulari a basi ad longe pone medium extensa, maculisque nonnullis versus apicem flavo-fulvis.

Long. $1\frac{1}{2}$ lin.

Hab. Guatemala, San Gerónimo, San Juan in Vera Paz (*Champion*).

Face only moderately produced between the eyes, front trisulcate. Antennæ less than half the length of the body, thickened towards the apex; joints cylindrical, the

five outer ones forming a slender elongate club. Thorax slightly broader than long; sides obsoletely angulate, nearly straight and parallel at the base, obliquely converging before the middle; disc subcylindrical, closely foveolate-punctate; the lateral margins, and also a few of the punctures on either side of the middle disc, black; a patch just in front of the scutellum, together with the apical margin, piceous. Elytra oblong, parallel, obtusely rounded at the apex; outer margin minutely serrulate, the serratures rather coarser near the hinder angle, the latter rounded; each elytron with eight, at the extreme base with nine, rows of large deep punctures; second, fourth, and sixth interspaces costate, the fifth also elevated at its base; nigro-æneous, a large irregular patch which extends from the base to beyond the middle, and which covers laterally the space between the humeral calli, together with some irregular spots on the apical third of the disc, flavo-fulvous.

C. distinctus is closely allied in general form and sculpture to *C. inæqualis*, Weber, a North-American species.

15. **Chalepus breviceps.**

Anguste oblongus, postice vix ampliatus, dorso subdeplanatus, nitidus; subtus cum capite rufo-piceus, pectore nigro-piceo, pedibus flavis; supra pallide flavus; capite brevi, facie inter oculos vix producta; thorace subcylindrico, profunde subcrebre punctato; lateribus obsolete angulatis, piceo-tinctis; elytris oblongis, parallelis, ad apicem vix ampliatis, minute serrulatis, apice obtuso, obsolete irregulariter serrulato, angulo postico distincto, breviter dentato; disco piceo-æneo marmorato; utrisque octo- basi nono-seriato-punctatis; interspatiis secundo, quarto et sexto, nec non sutura, costatis; costa externa ante apicem minus distincte elevata.

Long. 1½ lin.

Hab. PANAMA, David in Chiriqui (*Champion*). A single specimen.

Head short, rotundate; clypeus very short, transverse; interocular space obsoletely produced. Antennæ robust, equal in length to the head and thorax, the five outer joints distinctly thickened; eyes piceous. Thorax transverse, subcylindrical; sides straight and parallel from the base to the middle, thence very slightly converging towards the apex, armed just behind the latter with a minute tooth, the anterior angle with an oblique obtuse tooth; disc transversely depressed behind, deeply and somewhat closely punctured. Elytra oblong, slightly dilated towards the posterior angle; apices conjointly obtuse, the hinder angle distinct; sides minutely, the apical margin obsoletely, serrulate; posterior angle armed with one or two coarser serratures than those on the sides; moderately convex, flattened along the suture; each elytron with eight, at the extreme base with nine, regular rows of punctures; the second, fourth, and sixth interspaces, together with the suture, costate; the outer costa less distinctly raised before its apex, the apex itself more strongly elevated; apices of the costæ free.

The form of the head will at once separate *C. breviceps* from its allies.

16. **Chalepus roseus.**

Hispa rosea, Weber, Obs. Ent. 1801, p. 66.

Anguste oblongus, pallide flavo-fulvus; pectore, oculis elytrorumque maculis nigro-piceis; antennis basi piceo-tinctis; thorace subcylindrico, disco utrinque leviter excavato, rude et fortiter punctato; angulo antico dente obliquo obtuso armato; limbo (basi excepta) vittisque discoidalibus duabus (his sæpe obsoletis) piceis; elytris parallelis, apicem versus vix ampliatis, serrulatis, apice obtusis, angulo postico distincto obtuso; utrisque octo- basi extrema nono-seriato-punctatis, striis inter costas 1^{m} et 2^{m} ad apicem minus regulariter dispositis; interspatiis secundo, quarto et sexto, nec non sutura, costatis, costis ante apicem abbreviatis, tertia apice cristata, externis duabus apice connexis.

Var. A. Thoracis vittis nigris, abdomine elytrisque nigro-piceis aut nigris, his apice maculisque flavis. (*Hispa philemon*, Newman, Ent. Mag. v. p. 390.)

Var. B. Thoracis elytrorumque signaturis fere obsoletis.

Var. C. Antennis piceis.

Long. $1\frac{1}{2}$–2 lin.

Hab. North America, Canada, United States (var. A), Trenton Falls, New York.—Mexico, Northern Sonora (*Morrison*), Yolos (*Sallé*, var. C).

Vertex smooth, impunctate, impressed with a longitudinal groove; interocular space moderately but distinctly produced, obtuse. Antennæ rather longer than the head and thorax; joints cylindrical, the five outer ones distinctly thickened. Thorax broader than long; sides obsoletely angulate, nearly straight and parallel from the base to the middle, thence slightly converging to the apex, anterior angle armed with a strong, oblique, obtuse tooth; subcylindrical, faintly excavated on either side the medial line, strongly and coarsely punctured. Elytra oblong, very slightly dilated posteriorly; hinder angle obtuse, very slightly produced in the male, rather less distinctly so in the female; apices conjointly, obtusely rounded in either sex; sides and apex rather coarsely serrulate; each elytron with eight, at its extreme base with nine, rows of punctures, the puncturing of the rows between the first and second costæ confused towards the apex (in some specimens there are traces on the hinder disc of an additional row); second, fourth, and sixth interspaces, together with the suture, costate; the discoidal costæ terminate before reaching the hinder margin of the elytron; the third or outer costa is cristate at its termination, and is connected with the raised apex of the second or intermediate one by a short curved ridge; a transverse raised line (sometimes ill-defined) also connects the apices of the first and third costæ.

Contrary to the opinion of American entomologists, I cannot help considering *C. roseus*, Weber, and *C. inæqualis* of the same author, usually united under the former name, to be distinct. *C. roseus* is separated by the pale antennæ, and by the obtuse apices and the more or less defined hinder angle of the elytra; distinct and apparently constant differences also exist in the elytral costæ. In *C. inæqualis* the apices of the elytra are regularly rounded, the posterior angles being obsolete and the apices of all the costæ free; the third or outer costa is not more strongly raised posteriorly, as is the case in the present species. Both insects are equally variable in coloration.

I do not (with one exception) give any synonymy, as I have not had an opportunity

of examining authentically named specimens. *C. roseus* is usually placed as a synonym of *C. nervosus*, Panz.; but Panzer's description, "dorso nervoso-reticulato, nervis seu costis basi ramosis, in singulo elytro tribus apicem versus vero haud attingentibus spatio interjecto reticulato," scarcely agrees with the present species.

In Von Harold's Catalogue this species has in error been placed in the genus *Uroplata*.

17. Chalepus fryi.

Anguste oblongus, fulvus, nitidus; pectore nigro-piceo, abdomine piceo-tincto; elytris piceo-æneo marmoratis; thorace subcylindrico, rude crebre punctato, lateribus piceo marginatis; elytris oblongis; lateribus serrulatis, ad apicem vix ampliatis, medio obsolete sinuatis, apice obtuse rotundatis; dorso deplanatis, utrisque octo- basi nono-seriato-punctatis; interspatiis secundo, quarto sextoque costatis, costis duabus externis apice elevatis, connexis; callo humerali paullo lateraliter producto.

Long. $1\frac{1}{2}$ lin.

Hab. Mexico, Cordova (*Sallé*); Guatemala, Capetillo (*Champion*).

Vertex and front opaque, impressed with a longitudinal groove; interocular space moderately produced. Antennæ longer than the head and thorax; joints cylindrical, the five outer ones distinctly thickened. Thorax subconic, slightly broader than long; sides converging from base to apex, obsoletely angulate, slightly stained with piceous; subcylindrical, transversely depressed on the hinder disc, coarsely punctured. Elytra oblong; sides sinuate, very slightly dilated towards the apex, the apex itself obtuse, the outer margin obsoletely serrulate; each elytron with eight, at the extreme base with nine, regular rows of punctures; second, fourth, and sixth interspaces costate; the outer costa less distinct on the hinder disc, abruptly elevated at its apex, and confluent with the apex of the middle one; humeral callus laterally produced, its apex obtuse.

This species may be known from *C. roseus* by the rows of punctures on the elytra being regular for their whole length.

III. *Elytra each at the base with eight, at the apex with nine, rows of punctures* *.

1. *Apices of the elytra sinuate before reaching the sutural angle, the latter entire.*

18. Chalepus diversipes.

Elongatus, subtus piceo-niger, nitidus; abdominis lateribus, coxis tarsisque piceis, femoribus flavis, dorso nigro-lineatis, tibiis nigris; supra niger, opacus; fronte longitudinaliter sulcata, antice piceo maculata; thorace lateribus angulatis, crebre et fortiter punctato, utrinque macula parva picea ornato; elytris oblongis, postice paullo ampliatis, serrulatis, apice obtusis, ante suturam sinuatis, basi et medio octo- apice nono-seriato-punctatis, punctis parvis; sutura ad apicem interspatioque secundo valde costatis, sexto minus fortiter elevato; minute granulosis, punctorum fundo maculaque apicali piceis.

Long. $2\frac{1}{2}$ lin.

Hab. Mexico, Juquila (*Sallé*).

Head moderately produced between the eyes, minutely granulose; front impressed with a longitudinal groove. Antennæ slender, filiform; apical joints loosely articulated. Thorax transverse; sides converging from base to apex, distinctly angulate, slightly

* In *Chalepus instabilis* there is a very short ninth row of punctures at the extreme base of each elytron.

bisinuate; upper surface subcylindrical, transversely depressed on the hinder disc, closely covered with large coarse punctures. Elytra narrowly oblong, slightly dilated posteriorly; apical margin conjointly obtuse, broadly sinuate on either side; outer margin (the sinuate apices excepted) serrulate; upper surface granulose; each elytron at the base and on the medial disc with eight, at the apex with nine, rows of fine, but distinctly impressed punctures; the second interspace, together with the suture at its apex, strongly costate; the sixth interspace less strongly elevated.

2. *Apices of the elytra conjointly rounded, the sutural angle entire.*

19. **Chalepus instabilis.**

Subelongatus; subtus niger, nitidus, femoribus anticis subtus, posticisque basi, flavis; supra subnitidus, fulvus aut rufo-fulvus, vertice, antennis scutelloque nigris; thorace subcylindrico, dorso leviter deplanato, crebre et fortiter punctato, lateribus vittaque discoidali nigris; elytris anguste oblongis, fere parallelis, apice rotundatis, minute serrulatis; utrisque octo- basi extrema et apice nono-seriato-punctatis; interspatiis secundo, quarto sextoque, nec non sutura, costatis; nigris, utrisque vitta laterali, a basi ad ultra medium extensa (basi lata, ad apicem attenuata), fulva ornatis.

Var. A. Elytris nigris, utrisque macula basali alteraque apicali, rufo-fulvis ornatis.

Var. B. Elytris totis fulvis.

Var. C. Thorace elytrisque fulvis.

Long. 2 lin.

Hab. MEXICO, Toxpam, Yolos, Cordova (*Sallé, Höge*); GUATEMALA, Capetillo, San Gerónimo, Cerro Zunil 4000 to 5000 feet, Panajachel 5000 feet, Chiacam in Vera Paz (*Champion*).

Head smooth, impunctate; interocular space moderately produced; vertex sometimes black. Antennæ more than one third the length of the body, filiform, very slightly thickened towards the apex; joints cylindrical. Thorax transverse; sides very slightly converging from base to apex, obsoletely angulate; upper surface subcylindrical, flattened on either side the medial disc, leaving (in some specimens) a narrow, ill-defined, longitudinal ridge. Elytra narrowly oblong, very slightly increasing in width from the base to the posterior angle, regularly rounded at the apex; outer margin finely serrulate; each elytron with eight, at the extreme base and at the apex with nine, rows of punctures; second, fourth, and sixth interspaces, together with the suture, costate.

IV. *Each elytron with ten, about the middle portion with eight or nine, rows of punctures.*

20. **Chalepus marmoratus.** (Tab. III. fig. 11.)

Anguste oblongus, subcuneiformis, nitidus, fulvus; pectore piceo, thorace pedibusque flavis, tarsis pallide piceis, elytris castaneo marmoratis; thorace transverso, subcylindrico, pone medium transversim excavato, crebre et rude punctato, lateribus a basi ad apicem convergentibus, leviter rotundatis, medio obsolete angulatis; elytris oblongis, a basi apicem versus vix ampliatis, serrulatis, apice obtusis; dorso deplanatis, utrisque decem-, paullo ante medium nono-, apice extremo octo-, seriato-punctatis; interstitiis elevato-reticulatis; interspatiis secundo, quarto, sexto (basi et apice) octavoque costatis, hoc apice cristato; callo humerali oblique elevato, subacuto.

Long. 2–2½ lin.

Hab. Mexico, Playa Vicente (*Sallé*); Guatemala, Zapote (*Champion*); Nicaragua, Chontales (*Janson*); Panama, Caldera in Chiriqui 1200 feet, David, Taboga Island (*Champion*).

Vertex smooth, impunctate; front longitudinally sulcate; interocular space moderately produced, obtuse. Antennæ rather longer than the head and thorax, robust, thickened towards the apex; joints cylindrical, the five outer ones forming an ill-defined slender club. Thorax broader than long; sides converging and slightly rounded from base to apex, obsoletely angulate; disc transversely convex, excavated transversely behind the middle, coarsely and closely punctured; lateral margin (in some specimens) narrowly edged with piceous. Elytra broader than the thorax; sides slightly enlarged from the base towards the apex, the latter obtuse; margin serrulate; each elytron with ten, on the anterior disc with nine, rows of punctures, the seventh and eighth rows abbreviated posteriorly; the second, fourth, and sixth interspaces (the last at base and apex) strongly costate, the eighth less strongly elevated, its apex cristate, serrulate; the third costa arises from the apex of the humeral callus, and runs obliquely downwards to join the second one at the termination of its anterior third; its apical portion is confluent with the cristate apex of the fourth.

21. **Chalepus subapicalis.**

Anguste oblongus, subcuneiformis, nitidus; subtus cum capite niger, femoribus anticis basi thoraceque fulvis; supra minus nitidus, piceo-fulvus, elytrorum fascia lata subapicali picea; thorace transverso, subcylindrico, lateribus angulatis, disco postico transversim excavato, subopaco, rude et crebre punctato, margine antico lateribusque anguste piceis; elytris oblongis, apicem versus vix ampliatis, apice obtuse rotundatis, margine serratis, dorso deplanatis; utrisque decem- paullo ante medium nono-seriato-punctatis; interstitiis elevato-reticulatis; interspatiis secundo, quarto et octavo, nec non sexto basi et apice, costatis; costis duabus externis serrulatis.

Long. 2⅓ lin.

Hab. Mexico, Juquila, Oaxaca (*Sallé*).

Vertex smooth, impunctate; front longitudinally grooved, finely rugose-punctate on either side; interocular space very slightly produced. Antennæ slightly longer than the head and thorax, robust, slightly increasing in thickness towards the apex. Thorax transverse; sides slightly but distinctly angulate, straight and nearly parallel from the base to the middle, thence obliquely converging towards the apex; transversely convex, excavated on the hinder disc, closely, deeply, and coarsely punctured. Elytra broader than the thorax; sides regularly but only slightly dilated from the base towards the apex, the apex itself obtusely rounded, the outer margin rather strongly serrulate; each elytron at the extreme base with ten, just before the middle with nine, rows of punctures; second, fourth, and eighth interspaces costate, the sixth also elevated at its base and apex.

22. **Chalepus vittaticollis.**

Anguste cuneiformis, nitidus; subtus niger, abdomine pedibusque flavis, tarsis piceis; supra sordide piceo-fulvus; antennis nigris, extrorsum piceis; thorace transverso, foveolato-punctato, lateribus vittisque discoidalibus duabus nigro-piceis; scutello nigro; elytris oblongis, a basi apicem versus leviter ampliatis, apice obtuse rotundatis, margine serrulatis; utrisque decem- medio nono-seriato-punctatis, interstitiis elevato-reticulatis; interspatiis secundo, quarto, sexto (basi et apice) nec non octavo costatis, callo humerali modice lateraliter producto; nigro-piceis, æneo tinctis, maculis parvis numerosis fulvis ornatis.

***Var.* A. Antennis totis nigris, thoracis vittis abbreviatis, elytris rufo-piceo variegatis.**

Long. 2½ lin.

Hab. MEXICO, Juquila (*Höge*).

Head smooth: vertex and front impressed with a longitudinal groove. Antennæ scarcely longer than the head and thorax, thickened towards the apex, five outer joints forming a slender ill-defined club. Thorax transverse; sides angulate, straight and parallel from the base to the middle, thence obliquely converging towards the apex, the anterior angle produced, acute; upper surface transversely convex, transversely depressed and excavated on the hinder disc, deeply foveolate-punctate; the lateral margin, together with two discoidal vittæ (the latter confluent at the base), nigro-piceous. Elytra broader than the thorax, oblong, gradually but slightly dilated from the base towards the apex, the latter obtuse; outer margin distinctly but finely serrulate; each elytron with ten, on the anterior disc with nine, rows of punctures, the second, fourth, sixth (at base and apex), and the eighth interspaces costate; humeral callus laterally produced, obtuse. Broader, and with the humeral callus more distinctly produced than in *C. vittaticollis*, the elytral costæ more strongly elevated.

23. **Chalepus viridanus.** (Tab. III. fig. 8.)

Subcuneiformis, subdepressus; subtus niger, nitidus; pedibus (tibiis apice tarsisque exceptis) flavis, pectoris lateribus obscure fulvis; supra flavus, minus nitidus, scutello, collo utrinque, antennisque piceis; thorace sat crebre punctato; elytris decem- medio nono-seriato-punctatis; prasinis, late flavo limbatis, limbi maculis fasciaque subapicali nigris.

Long. 2 lin.

Hab. PANAMA, Caldera in Chiriqui 1200 feet (*Champion*).

Interocular space very slightly produced; vertex and front smooth, impunctate, obtuse, fulvous, sides of neck nigro-piceous. Antennæ longer than the head and thorax, thickened towards the apex, joints cylindrical, the five outer ones forming a slender, elongate club; eyes black. Thorax transverse; sides straight and parallel, converging at the extreme apex, anterior angle armed with an obtuse tooth; disc transversely convex, transversely depressed behind the middle, closely and coarsely punctured, outer limb narrowly edged with piceo-fulvous. Elytra oblong, increasing in width from the base towards the apex, the latter obtusely rounded; lateral margin finely, the apical one more strongly, serrulate; each elytron at the base and apex with ten, the middle disc with nine, rows of punctures; the second, fourth, sixth (at base and apex), and eighth interspaces

moderately costate; green, the basal limb narrowly, the outer one broadly, flavous; the latter with some irregular markings together with a narrow subapical fascia, black.

24. Chalepus productus.

Subcuneiformis, subdepressus, nitidus, subtus piceus; pedibus (tarsis exceptis) thoraceque flavis; supra pallide flavus, capite lævi, vertice antennisque nigro-piceis; thorace subcylindrico, pone medium transversim excavato, crebre punctato, utrinque prope basin piceo notato; elytris oblongis, postice vix ampliatis, apice obtusis, utrinque sinuatis, angulo postico paullo lateraliter producto, obtuso; margine laterali distincte, apicali obsolete, serrulatis; utrisque decem- prope medium nono-seriato-punctatis; interspatiis secundo, quarto, sexto (basi et apice) octavoque (hoc minus distincte) costatis, sutura (basi excepta) elevata; nigro-piceis, apice maculisque flavis.

Long. 2 lin.

Hab. Guatemala, Panajachel 5000 feet (*Champion*).

Head smooth, impunctate; face very slightly produced between the eyes. Antennæ rather longer than the head and thorax, robust; joints cylindrical, gradually increasing in thickness from the sixth to the apical one. Thorax transverse; sides slightly rounded, nearly straight and parallel from the base to the middle, thence slightly rounded and converging towards the apex, apical angle armed with a short, oblique, subacute tooth; above subcylindrical, transversely excavated on the hinder disc, coarsely and closely punctured; either extremity of the transverse depression with a small piceous spot, the lateral margin narrowly edged with pale piceous. Elytra much broader than the thorax, oblong; sides parallel anteriorly, very slightly dilated towards the hinder angle, the latter slightly produced laterally, obtuse; apex slightly sinuate on either side near the outer angle; lateral margin distinctly, the apical one minutely and much less distinctly, serrulate; each elytron with ten, on the anterior disc with nine, rows of large deep punctures; the second, fourth, sixth (the last broadly interrupted in the middle), together with the eighth interspaces costate, the eighth less strongly elevated than the rest, the suture (its extreme base excepted) also costate.

25. Chalepus californicus.

Odontota californica, Horn, Trans. Amer. Ent. Soc. 1883, p. 297[1].

Anguste oblongus, modice convexus, nitidus; subtus nigro-piceus, pedibus fulvis, tarsis piceis; supra pallide rubiginosus, antennis piceo-nigris aut nigris; thorace crebre punctato, lateribus piceo marginatis; elytris oblongis, hic illic piceo tinctis; utrisque decem- prope medium nono-seriato-punctatis; interspatiis secundo, quarto, octavo (hoc basi excepta) nec non sexto basi et apice, costatis, sutura elevata.

Var. A. Elytrorum maculis piceis obsoletis.

Long. 1¾–2 lin.

Hab. North America, California, Arizona[1] (*Horn*).—Mexico, Northern Sonora (*Morrison*).

Head smooth, opaque; face between the eyes obsoletely produced; front and upper face impressed with a deep longitudinal groove. Antennæ equal in length to the head and thorax, slightly thickened towards the apex, joints cylindrical; eyes black. Thorax

slightly broader than long; sides converging from base to apex, obsoletely angulate; above subcylindrical, transversely depressed on the hinder disc, closely and coarsely punctured; lateral margin narrowly edged with piceous. Elytra oblong, parallel; apices conjointly, obtusely rounded; margin minutely serrulate; upper surface convex on the sides and at the apex, slightly flattened along the suture; each elytron with ten, about the middle disc with nine, at the extreme base with eleven, rows of deeply impressed punctures; the second, fourth, and eighth interspaces (the basal third of the last excepted), together with the sixth at base and apex, costate, the suture also elevated.

This species differs, according to Dr. Horn, from the smaller forms of *C.* (*Odontota*) *rubra* in having the thorax much less dilated posteriorly, and in the absence of the rather abrupt expansion of the apices of the elytra; the elytral costæ are also less elevated.

26. **Chalepus contiguus.** (Tab. III. fig. 12.)

Anguste elongatus; subtus niger, nitidus, prosterno thoracisque apice, fulvis; supra minus nitidus; thorace subcylindrico, disco postico transversim depresso, fortiter subcrebre foveolato-punctato, lateribus obsolete angulatis; fulvo, plaga subquadrata discoidali ad basin adfixa, interdum vittam angustam ad marginem anticum emittente nigro-picea instructo; elytris elongatis, parallelis, medio obsolete constrictis, apice rotundatis, serrulatis; utrisque decem- medio octo-seriato-punctatis, interstitiis elevato-reticulatis; interspatiis secundo, quarto octavoque costatis; plaga laterali lata a basi ad longe pone medium extensa, fulva ornatis.

Var. A. Thoracis plaga fere obsoleta.

Long. 2½ lin.

Hab. Panama, Volcan de Chiriqui 2500 to 4000 feet (var. A), Taboga Island (*Champion*).

Vertex and front bisulcate; interocular space moderately produced. Antennæ more than one third the length of the body, filiform, slightly thickened towards the apex. Thorax transverse; sides nearly straight and parallel from the base to the middle, thence obliquely converging and slightly rounded to the apex; above subcylindrical, transversely excavated on the hinder disc, deeply and somewhat closely punctured. Elytra parallel, obsoletely constricted in the middle, serrulate, regularly rounded at the apex; each elytron with ten, about the middle with eight, rows of punctures; second, fourth, and eighth interspaces costate, the suture also elevated.

27. **Chalepus fraternus.** (Tab. III. fig. 10.)

Elongatus, fere parallelus, fulvus; pectoris lateribus, pedibus, femoribus (basi excepta), antennis elytrorumque apice nigris; thorace transverso, crebre punctato, lateribus subangulato-rotundatis; scutello nigro-piceo; elytris subparallelis, apice obtuse rotundatis, margine serrulato; utrisque decem- vix ante medium nono-seriato-punctatis; interspatiis secundo et quarto æqualiter, octavo minus fortiter, costatis, sutura modice elevata.

Long. 3 lin.

Hab. Mexico, Cordova (*Höge*).

Vertex smooth, impunctate; interocular space moderately produced, angulate.

Antennæ robust, obsoletely thickened towards the apex, rather longer than the head and thorax; joints cylindrical, the first two short, equal, the third scarcely longer than the second. Thorax broader than long, sides converging from base to apex, subangulate-rotundate; disc transversely convex, transversely excavated behind the middle, coarsely and closely punctured. Elytra broader than the thorax; sides very slightly dilated, the apices regularly rounded, outer margin distinctly serrulate; each elytron at the extreme base and on the hinder disc with ten, on the anterior disc with nine, rows of large, deeply impressed punctures; second and fourth interspaces rather strongly and equally costate, the eighth interspace less strongly elevated, the sixth interspace thickened at its apex, the suture also thickened.

28. **Chalepus pascoei.**

Subelongatus; subtus niger, nitidus; pectoris medio, femoribusque basi fulvis; supra flavo-fulvus, minus nitidus; antennis, scutello, nec non elytrorum vitta suturali baseos nigris; thorace transverso, lateribus angulatis; disco crebre, minus fortiter punctato; lateribus angustis vittaque discoidali, hac sæpe basi et apice abbreviata, nigris; elytris fere parallelis, apice rotundatis, margine minute serrulato; utrisque decem- paullo ante medium nono-seriato-punctatis; interspatiis secundo et quarto æqualiter, octavo minus distincte, costatis.

Long. 2¼ lin.

Hab. GUATEMALA, San Gerónimo (*Champion*).

Head smooth, impunctate; vertex impressed with a shallow longitudinal groove; interocular space moderately produced. Antennæ robust, rather longer than the head and thorax, slightly thickened towards the apex; joints cylindrical. Thorax transverse; sides angulate, converging from base to apex; disc transversely convex, transversely excavated behind the middle, closely and coarsely, but not very deeply punctured. Elytra broader than the thorax, subparallel, regularly rounded at the apex, the outer margin minutely serrulate; each elytron with ten, just before its middle with eight or nine, rows of punctures; the second and fourth interspaces costate, the eighth less strongly elevated.

29. **Chalepus amabilis.**

Anguste elongatus, parallelus, flavo-fulvus; subtus læte fulvus, nitidus; pectoris lateribus abdominisque apice nigro-piceis, pedibus nigris, femoribus (apice excepto) piceo-fulvis; supra opacus, capite (vertice excepto) nigro; thorace conico, lateribus fere rectis, medio obsolete angulatis, anguste nigro marginatis; disco subcylindrico, pone medium transversim excavato, crebre rugoso-punctato; elytris parallelis, apice rotundatis, lateribus minute serrulatis, margine apicali paullo dilatato, acute denticulato; utrisque decem-prope medium nono-seriato-punctatis; interspatiis secundo et quarto æqualiter, octavo minus fortiter, costatis.

Long. 3¼ lin.

Hab. MEXICO, Tehuantepec (*Sallé*). A single specimen.

Face strongly produced between the eyes; front deeply trisulcate. Antennæ moderately robust, filiform, slightly thickened towards the apex; joints cylindrical, the third

nearly one half longer than the second. Thorax slightly broader than long, conic; sides nearly straight, obsoletely angulate in the middle; disc subcylindrical, transversely excavated behind the middle, closely rugose-punctate. Elytra parallel, regularly rounded at the apex; sides finely serrulate; apical margin narrowly dilated, acutely denticulate; each elytron with ten, the medial disc with nine, rows of punctures; second and fourth interspaces rather strongly and equally costate, the eighth less strongly elevated, the sixth obsoletely costate at base and apex.

30. **Chalepus digressus.**

Anguste elongatus, parallelus; subtus niger, nitidus, pectoris medio fulvo; supra opacus, fulvus, capite scutelloque nigris; thorace transverso; lateribus a basi apicem versus convergentibus, bisinuatis, medio angulatis; disco transversim convexo, crebre rugoso-punctato, linea discoidali, apice abbreviata, lateribusque angustis, nigro-piceis; elytris parallelis, apice obtuse rotundatis; lateribus obsolete serrulatis, margine apicali acute dentato; utrisque decem-prope medium nono-seriato-punctatis; interspatiis secundo, quarto octavoque æqualiter costatis, sexto basi et apice minus fortiter elevato; linea suturali baseos apiceque extremo piceo-nigris.

Long. 3 lin.

Hab. Mexico, Tuxtla (*Sallé*). A single specimen.

Face between the eyes rather strongly produced; front trisulcate. Antennæ robust, slightly but distinctly thickened towards the apex; joints cylindrical, the third nearly one half longer than the second. Thorax transverse; sides converging from base to apex, bisinuate, distinctly angulate in the middle; disc transversely convex, closely rugose-punctate. Elytra parallel, obtusely rounded at the apex, lateral margin minutely serrulate, apical border rather strongly denticulate; each elytron with ten, the medial disc with nine, rows of punctures; second, fourth, and eighth interspaces equally and rather strongly costate, the sixth subcostate at base and apex.

This species, although very nearly allied to *C. amabilis*, presents, in addition to the different coloration, distinct structural differences: thus the thorax is broader, and has its lateral margin more distinctly angulate; the outer costa on the elytron is equal in height to the other two, whilst the apical margin is not dilated, and is more strongly toothed.

31. **Chalepus nigripictus.** (*C. nigripectus*, Tab. III. fig. 14.)

Anguste elongatus, parallelus, niger, nitidus, pectoris medio obscure fulvo; fronte trisulcato; antennis fusiformibus; thorace subconico, lateribus ante medium constrictis; subcylindrico, pone medium transversim excavato, fortiter subcrebre punctato; fulvo, opaco, vitta lata discoidali lateribusque nigris; elytris parallelis, apicem versus vix ampliatis, apice rotundatis, lateribus serrulatis, margine apicali dentibus acutis brevibus armato; utrisque decem- medio nono-seriato-punctatis; interspatiis secundo, quarto fortiter, sexto (basi et apice) octavoque, nec non sutura modice costatis; fulvis, dimidio postico fere, vitta suturali lata, necnon vitta humerali, nigris.

Long. 3 lin.

Hab. Panama, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Front deeply trisulcate; interocular space strongly produced, its apex angulate. Antennæ nearly half the length of the body, robust, fusiform; first and second joints

short, equal, the third one half longer than the second, subclavate. Thorax broader than long, subconic; sides obliquely converging from base to apex, constricted before the middle, anterior angle armed laterally with a short obtuse tooth; subcylindrical, flattened and broadly excavated on the hinder disc, impressed with large round punctures, well defined on the medial disc, shallower and less distinct on the sides. Elytra elongate, parallel, the apex regularly rounded, entire; lateral margin serrulate, apical border armed with regularly placed acute teeth; above convex, flattened along the suture; each elytron with ten, in the middle with nine, rows of large deeply impressed punctures; the suture, together with the second, fourth, sixth, and eighth interspaces, costate, the sixth interrupted on its middle third; fulvous, the apical third, a sutural vitta, together with a short line on the humeral callus, black. Legs elongate, the apices of the anterior tibiæ thickened.

32. **Chalepus vicinalis.**

Elongatus, parallelus; subtus niger, nitidus, thoracis margine antico prosternoque fulvis; supra minus nitidus, fulvus, capite scutelloque nigris; thorace transverso, lateribus bisinuatis, medio distincte angulatis; fortiter subcrebre punctato, lateribus extremis vittaque discoidali nigris; elytris parallelis, apice rotundatis, marginibus obsolete serrulatis, margine apicali dentibus brevibus armato; utrisque decem- prope medium nono-seriato-punctatis, interstitiis elevato-reticulatis; interspatiis secundo, quarto octavoque sat valde costatis, sexto basi et apice minus distincte elevato; vitta lata suturali, a basi ad medium extensa, parteque tertia apicali, nigris.

Long. $3\frac{1}{3}$ lin.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet (*Champion*). A single specimen.

Vertex and front impunctate, the latter trisulcate; interocular space rather strongly produced. Antennæ more than one third the length of the body, robust, thickened towards the apex; joints cylindrical, the third nearly one half longer than the second. Thorax transverse; sides angulate, bisinuate, nearly parallel from the base to the middle, thence obliquely converging to the apex; disc subcylindrical, transversely excavated behind, deeply impressed with large round punctures. Elytra parallel, regularly rounded at the apex; sides obsoletely serrulate, apical margin denticulate; each elytron with ten, the medial disc with eight or nine, rows of punctures, the sixth and seventh rows being more or less obsolete in the middle part of their course; second, fourth, and eighth interspaces rather strongly costate, sixth interspace slightly elevated at base and apex.

Nearly allied to the preceding species. The thorax broader, distinctly angulate on the sides, the apical teeth of the elytra shorter, the interspaces between the discoidal costæ more distinctly elevate-reticulate.

33. **Chalepus consanguineus.** (Tab. III. fig. 13.)

Elongatus, parallelus, niger, nitidus; thorace elytrisque subnitidis, fulvis; illo transverso, lateribus leviter angulatis, crebre punctato; margine laterali anguste, vittaque lata discoidali, antice abbreviata, nigris; elytris parallelis, apice rotundatis, margine laterali obsolete, apicali distincte, serrulatis; utrisque decem-

medio nono-seriato-punctatis; interspatiis secundo et quarto æqualiter, octavo minus distincte, costatis; vitta suturali lata, postice angustata, apiceque late, nigris.
Long. 3 lin.

Hab. Panama, Bugaba, David, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Vertex smooth, impunctate; front deeply impressed with a longitudinal groove; interocular space strongly produced, obtuse. Antennæ less than half the length of the body, moderately robust, slightly thickened towards the apex; joints cylindrical. Thorax transverse; sides slightly but distinctly angulate, converging from base to apex, more quickly converging before the middle; disc transversely convex, excavated transversely behind the middle, coarsely and closely punctured. Elytra broader than the thorax, parallel, rounded at the apex; lateral margin obsoletely, the apical one distinctly, serrulate; each elytron with ten, just before the middle with nine, rows of punctures; the second and fourth interspaces costate, the eighth less distinctly elevated.

34. **Chalepus bellulus.** (Tab. III. fig. 15.)

Odontota bellula, Chapuis, Ann. Soc. Ent. Belg. 1877, p. 11.

Elongatus, parallelus, rufo-fulvus, nitidus; capite pedibusque nigris, his basi fulvis; thorace transverso, subconico, rude foveolato-punctato; elytris parallelis, medio leviter coarctatis, apice rotundatis, margine serrulatis; utrisque tricostatis, decem-seriato-punctatis, seriebus 7ª et 8ª medio interruptis; nigro-cyaneis, vitta lata discoidali, prope suturam posita, a basi ad pone medium extensa, fulva, ornatis; abdominis segmento ultimo plus minusve nigrescente.

Var. A. Elytris nigro-cyaneis, macula basali parva irregulari fulva. (*Odontota tricolor*, Chapuis, l. c. p. 11.)
Long. 3 lin.

Hab. Guatemala, San Gerónimo, El Reposo 800 feet (*Champion*); Nicaragua, Chontales (*Belt*).

Head smooth, impunctate; vertex and front impressed in the medial line with a deep longitudinal groove; front produced between the eyes into a conical process. Antennæ half the length of the body, robust, filiform, slightly thickened towards the apex; first and second joints short, equal, the basal one slightly incrassate, the third obconic, one third longer than the second. Thorax broader than long; sides obtusely angulate-subrotundate, nearly parallel from the base to the middle, thence obliquely converging to the apex; anterior angle armed with a very short subacute tooth; upper surface subcylindrical, broadly excavated transversely on the hinder disc, coarsely and deeply foveolate-punctate; medial line with an ill-defined shallow longitudinal groove. Elytra subelongate, parallel, slightly constricted on the sides, the concavity extending from the shoulder to the posterior angle; outer margin serrulate, apex rounded, rather more strongly serrulate than the sides; each elytron with ten rows of deep punctures, the ninth and tenth irregular, and the seventh and eighth entirely obsolete in their middle third; second, fourth, and eighth interspaces strongly costate, the suture also thickened; nigro-æneous, a broad vitta on the inner disc, confluent at the base with its fellow on the opposite elytron, and extending from the basal margin to below the middle of the elytron, fulvous.

I have united the two species of Chapuis for the following reasons: the punctuation of the thorax and the angularity of its sides vary greatly in different individuals, and the fulvous vittæ on the elytra also greatly vary in length, being sometimes confined to a small basal patch.

V. *Elytra each with ten regular rows of punctures.*

1. *Second and eighth interspaces costate, entire.*

35. **Chalepus hæmatoderus.** (Tab. III. fig. 23.)

Elongatus, niger; subtus nitidus, supra opacus; pro- et mesosternis, thorace, scutello elytrorumque plaga basali, rufo-fulvis; thorace transverso; lateribus rotundatis, ad apicem convergentibus; basi utrinque profunde excavata; disco velutino, pone medium transverso excavato, utrinque ad latus obsolete foveolato; elytris basi lobatis, lateribus parallelis, medio leviter constrictis, irregulariter serrulatis, apice rotundato, breviter denticulato; granulosis, utrisque decem-seriato-punctatis; interspatiis secundo valde, quarto et sexto basi et apice, nec non octavo toto, modice costatis.

Mas. Tibiis anticis intus ante apicem dente acuto armatis.

Long. 3½ lin.

Hab. PANAMA, David, Bugaba 800 to 1500 feet, Caldera in Chiriqui 1200 feet, San Lorenzo, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).

Vertex smooth and shining; front subnitidous, rather strongly produced between the eyes, trisulcate; clypeus subpentangular, rugose, impressed at the apex with two large oblique foveæ. Antennæ half the length of the body, filiform; joints cylindrical, the terminal one acute; two lower joints short, equal in length, the first of these thickened, submoniliform, the second ovate; third joint rather longer than the preceding two united. Thorax transverse; sides sinuate at the base, then nearly straight to the middle, thence gradually converging towards the apex, anterior angle armed with a short obtuse tooth; basal margin deeply excavated on either side in order to receive the strongly produced basal lobes of the elytra; above subcylindrical in front and on the sides, basal half of disc deeply and transversely excavated; surface smooth, velvety, faintly impressed on the sides with a few large, very shallow and ill-defined foveæ. Scutellum broader than long, subquadrate. Elytra subelongate, each with the basal margin produced into a strong lobe which fits, when at rest, into the corresponding basal excavation of the thorax; sides parallel, slightly constricted in the middle, irregularly serrulate, the serratures (fine at the base) gradually increasing in size towards the hinder angle; apex rounded, armed with strong acute teeth; upper surface convex on the sides, flattened along the suture, coarsely granulose; each elytron with ten rows of round nitidous punctures; the second interspace raised into a strong smooth nitidous costa, the basal and apical portions of the fourth and sixth, together with the whole of the eighth, also costate*, but less strongly so than the second. Legs slender, elongate.

* In some specimens the basal portion of the fourth, in others the apex of the sixth, interspace is not costate.

36. **Chalepus rufithorax.**

Elongatus, niger, nitidus, thorace mesosternoque rufo-fulvis; metasterni medio, abdominis basi scutelloque, rufo-piceis; thorace transverso, lateribus a basi apicem versus convergentibus, leviter trisinuatis, margine basali utrinque sat profunde excavato; disco opaco, leviter foveolato, pone medium transversim excavato; elytris basi lobatis; lateribus parallelis, medio vix constrictis, serrulatis, apice rotundato, breviter spinoso; supra granuloso-punctatis, utrisque decem-seriato-punctatis; interspatiis secundo valde, quarto apice, sexto basi et apice extremo, nec non octavo toto, mediocriter costatis.
Long. $3\frac{3}{4}$ lin.

Hab. Mexico, Tuxtla (*Sallé*).

So closely allied to *C. hæmatoderus*, of which species it is possibly only a local form, that it will be only necessary to give the principal points of difference: the clypeus is rather larger, less distinctly pentangular, and the oblique apical foveæ are much smaller and narrower; the sides of the thorax are slightly distinctly trisinuate; the elytra are entirely black, and their apical teeth are rather finer; in all other respects it agrees with the preceding species.

37. **Chalepus sanguinosus.**

Elongatus, parallelus, niger; subtus nitidus, supra subopacus; mesosterno thoraceque sanguineis, scutello piceo; thorace transverso, lateribus trisinuatis, ad apicem convergentibus; convexo, pone medium sat profunde transversim excavato, rude et crebre punctato; elytris parallelis, basi lobatis, apice conjunctim rotundatis, denticulatis, lateribus tenuiter serrulatis; utrisque decem-seriato-punctatis, interstitiis elevato-reticulatis; interspatiis secundo valde, quarto basi et apice, sexto basi, nec non octavo toto, modice costatis.
Long. $3\frac{1}{2}$ lin.

Hab. Nicaragua (*Sallé*).

Very closely allied structurally to the two preceding species. The thorax more strongly punctured, its sides distinctly angulate before the middle; the clypeus larger, and its apical foveæ narrower than in *C. hæmatoderus*.

2. *Second, fourth, and eighth interspaces costate, entire.*

38. **Chalepus chromaticus.** (Tab. III. fig. 22.)

Elongatus, parallelus; subtus niger, nitidus; supra minus nitidus, rufo-fulvus, capite scutelloque nigris; thorace transverso; lateribus a basi apicem versus convergentibus, subangulato-rotundatis, basi fere rectis; velutino, vage punctato, lateribus vittaque lata discoidali nigris; elytris parallelis, minute serrulatis, apice rotundatis, margine apicali denticulato; utrisque decem-seriato-punctatis; interspatiis secundo, quarto octavoque, nec non sexto basi et apice, costatis; opacis, costis nitidis; vitta suturali, a basi ad longe pone medium producta, postice attenuata, nigra.
Long. 3–$3\frac{1}{2}$ lin.

Hab. Panama, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Var. A. Supra flavo-fulvus, elytrorum vitta suturali obsoleta, thoracis vitta discoidali angustata.

Hab. Guatemala, San Gerónimo (*Champion*); Costa Rica (*Van Patten*).

Vertex longitudinally grooved; interocular space strongly produced, its apex angulate. Antennæ robust, nearly half the length of the body, filiform; joints cylindrical.

Thorax transverse; sides nearly parallel at the extreme base, thence converging towards the apex, sinuate just behind the latter, anterior angle slightly produced laterally, acute; above transversely convex, transversely depressed on the hinder disc, opaque, impressed with large, shallow, ill-defined punctures. Elytra parallel, regularly rounded at the apex; lateral margin minutely serrulate, the apex armed with a number of acute teeth, equal in length and placed at nearly equal distances on the margin; each elytron with ten regular rows of punctures, the second, fourth, and eighth, together with the base and apex of the sixth, interspaces, costate.

39. **Chalepus propinquus.**

Elongatus, parallelus; subtus cum capite niger, nitidus; supra subopacus, fulvus; thoracis vitta discoidali, scutello elytrorumque linea suturali, nec non tertia postica, nigris; thorace transverso, lateribus rotundatis, basi rectis; dorso convexo, pone medium leviter transversim excavato, crebre et rude punctato; elytris parallelis, apice regulariter rotundatis, margine laterali obsolete, apicali distincte serrulatis; utrisque decem-seriato-punctatis; interspatiis secundo et quarto æqualiter, octavo minus distincte, costatis.
Long. 3–3½ lin.

Hab. Mexico (*coll. Baly*); Guatemala, Capetillo, El Tumbador 2500 feet, Dueñas, Senahu in Vera Paz (*Champion*).

Head smooth, impunctate, hinder vertex sometimes fulvous; front longitudinally grooved; interocular space moderately produced, angulate. Antennæ robust, filiform, scarcely thickened towards the apex, rather longer than the head and thorax. Thorax transverse; sides straight and parallel from the base to the middle, thence rounded and narrowed to the apex, constricted just behind the latter, the anterior angle armed with a very short oblique tooth; upper surface transversely convex, slightly excavated transversely on the hinder disc, coarsely and closely punctured. Elytra broader than the thorax, parallel on the sides, regularly rounded at the apex; lateral margin obsoletely, the apical one distinctly, serrulate; each elytron with ten rows of deep punctures, the second and fourth interspaces equally, the eighth less strongly, costate, the hinder portion of the sixth slightly elevated.

40. **Chalepus clypeatus.**

Elongatus, parallelus, nitidus; subtus niger, pectoris medio fulvo; supra flavo-fulvus, scutello capiteque nigris; vertice profunde sulcato; antennis robustis, subfusiformibus, clypeo quadrato-elongato; thorace subcylindrico, basi transversim excavato, rude et irregulariter punctato, lateribus angulatis; vitta discoidali lateribusque angustis nigris; elytris parallelis, serrulatis, apice rotundatis, breviter spinosis; utrisque decem-seriato-punctatis; interspatiis secundo, quarto octavoque costatis; linea suturali, necnon tertia parte postica, nigris.
Long. 3½ lin.

Hab. Nicaragua, Chontales (*Belt*).

Head strongly produced between the eyes, front deeply sulcate; clypeus quadrate-elongate, thickened, coarsely and deeply punctured; antennæ robust, subfusiform. Thorax transverse; sides straight and slightly converging from the base to beyond the

middle, thence obliquely converging and sinuate to the apex, apical angle armed laterally with a very short acute tooth; upper surface transversely convex, excavated transversely behind the middle, coarsely and irregularly punctured. Elytra parallel, serrulate on the sides, rounded at the apex, the apical margin armed with a number of strong acute teeth; each elytron with ten regular rows of punctures, the second, fourth, and eighth interspaces costate, the apex of the sixth subcostate.

41. **Chalepus horni.**

Elongatus, parallelus, niger, nitidus; femoribus anticis puncto basali thoraceque rufo-fulvis; hoc subcylindrico, disco postico excavato, rude et fortiter rugoso-punctato, lateribus angulatis; elytris parallelis, apice regulariter rotundatis, tenuiter serrulatis; utrisque decem-seriato-punctatis; interspatiis secundo, quarto octavoque costatis, hoc minus elevato; rufo-fulvis aut fulvis, vitta suturali dimidiaque apicali nigris.
Long. 3 lin.

Hab. Mexico, Cordova, Juquila, Toxpam (*Sallé*).

Vertex and front smooth, trisulcate, a small indistinct patch just above the antennæ piceo-rufous; interocular space rather strongly produced. Antennæ less than a third the length of the body, filiform, slightly thickened towards the apex; seventh joint short, narrower than either the sixth or eighth. Thorax subcylindrical; sides distinctly angulate, nearly straight and parallel from the base to the middle, thence obliquely converging towards the apex; upper surface subcylindrical, rather deeply excavated transversely on the hinder disc, closely and coarsely rugose-punctate. Elytra parallel on the sides, regularly rounded at the apex, the outer margin finely serrulate, the serratures scarcely stronger at the apex than on the sides; each elytron with ten rows of punctures, the second, fourth, and eighth interspaces (the last less strongly) costate.

The apical black patch varies greatly in extent; in some specimens it covers the hinder disc, in others it is confined to the extreme apex.

42. **Chalepus subparallelus.**

Elongatus, subparallelus; subtus cum capite niger, nitidus; supra subopacus, fulvus; thoracis lateribus vittaque discoidali, scutello elytrorumque linea suturali, nigris; thorace crebre et fortiter punctato, disco postico transversim excavato, lateribus subangulato-rotundatis; elytris anguste elongato-ovalibus, apice rotundatis, angulo suturali leviter subangulato-emarginatis; margine laterali tenuiter, apicali distincte, serrulatis; utrisque decem-seriato-punctatis; interspatiis secundo et quarto modice, sexto basi et apice, octavoque toto minus distincte, costatis.
Long. 3½ lin.

Hab. Mexico, Juquila (*Sallé*).

Vertex and front irregularly grooved; interocular space strongly produced. Antennæ about one third the length of the body, filiform, slightly thickened towards the apex; joints cylindrical, two basal ones short, equal, the third nearly equal in length to the preceding two, subcylindrical. Thorax transverse; sides nearly straight and very slightly converging behind the middle, thence obliquely converging and slightly rounded to the apex, notched at the anterior angle, the latter armed laterally with a very short acute

tooth; upper surface subcylindrical, rather deeply excavated transversely on the hinder disc, closely and strongly punctured, medial line with a very fine longitudinal groove. Elytra narrowly elongate-ovate; sides slightly rounded, finely serrulate; apex regularly rounded, angulate-emarginate at the sutural angle, distinctly serrulate; each elytron with ten rows of punctures, the second and fourth interspaces distinctly, the sixth at base and apex, together with the eighth entirely, obsoletely costate.

43. **Chalepus angulosus.**

Elongatus, fere parallelus, niger; subtus nitidus, prosterno fulvo; supra subopacus, capite scutelloque nigris, illo inter oculos sat valde producto, apice angulato; thorace transverso; lateribus angulatis, dorso transversim convexo, ante basin depresso, velutino, vage subcrebre punctato; fulvo, lateribus vittaque lata discoidali nigris; elytris fere parallelis, apicem versus obsolete ampliatis, apice regulariter rotundatis; margine apicali obsolete, apicali distincte, serrulatis; utrisque decem-seriato-punctatis; interspatiis secundo, quarto octavoque nec non sexto basi, costatis; vitta lata laterali a basi ad longe pone medium extensa, postice attenuata, basi linea submarginali brevi nigra, fulva notata ornatis.

Long. 3 lin.

Hab. Panama, David, Volcan de Chiriqui 2000 to 4000 feet (*Champion*).

Vertex and front opaque, trisulcate; interocular space rather strongly produced, its apex angulate. Antennæ nearly half the length of the body, tapering at base and apex; joints cylindrical, the first and third nearly equal in length, the second joint shorter. Thorax transverse; sides angulate, nearly straight, obsoletely sinuate behind the middle, converging and distinctly sinuate from thence to the apex, the apical angle laterally acute; upper surface transversely convex, transversely depressed on the hinder disc and again obsoletely before the middle, vaguely but somewhat closely punctured. Elytra nearly parallel, obsoletely dilated towards the posterior angle, rounded at the apex, the lateral margin obsoletely, the apical one distinctly, serrulate; each elytron with ten rows of punctures, the second, fourth, and eighth interspaces, together with the basal portion of the sixth, costate.

44. **Chalepus similatus.**

Elongatus, subcylindricus, niger nitidus; femoribus anticis quatuor basi thoraceque fulvis; hoc transverso, rude foveolato-punctato; apice, lobo basali, nec non lateribus angulatis, anguste piceo marginatis; elytris parallelis, apice rotundatis, serrulatis; utrisque decem-seriato-punctatis, striis integris, sutura interspatiisque secundo, quarto et octavo, nec non sexto pone medium, costatis; vitta lata discoidali, a basi ad medium extensa, fulva.

Long. 3 lin.

Hab. Guatemala, Cubulco (*Champion*); Panama, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Head smooth and shining, faintly tinged with æneous; front moderately produced, trisulcate, its anterior portion covered with an ill-defined fulvo-piceous patch. Antennæ rather more than one third the length of the body, filiform, slightly thickened towards the apex; the two basal joints subovate, equal in length, the third joint one fourth

longer than the second. Thorax about one third broader than long; sides nearly straight and parallel from the base to the middle, thence obliquely converging to the apex; anterior angle armed with a very short obtuse tooth; above subcylindrical, closely covered with large foveolate punctures, the hinder disc flattened; upper surface, together with the sides beneath, fulvous; the apical and lateral margins, together with the basal lobe, narrowly edged with piceous. Elytra parallel, rounded at the apex, finely serrulate, the apical serratures not coarser than those on the lateral margin; each elytron with ten rows of large deeply impressed round punctures, the rows entire; second, fourth, and eighth interspaces, together with the suture, strongly costate; the sixth interspace below its middle also raised, but much less distinctly so than the others; middle disc covered with a broad fulvous vitta, which extends downwards from the basal margin to the middle of the elytra.

45. **Chalepus subhumeralis.**

Elongatus, parallelus, niger, nitidus, femoribus basi flavis; thorace transverso, lateribus angulatis; dorso transversim convexo, pone medium transversim excavato, fortiter punctato; lateribus vittaque discoidali nigris; elytris parallelis, apice regulariter rotundatis, margine minute serrulatis; utrisque decem-seriato-punctatis; interspatiis secundo et quarto (nec non octavo minus distincte) costatis; vitta submarginali, a basi ad medium extensa, callum humerale amplectente, flavo-fulva.

Long. 2–2½ lin.

Hab. GUATEMALA, Senahu, Lanquin, Chacoj in Vera Paz, Cerro Zunil 4000 feet (*Champion*).

Front impressed with a broad longitudinal fovea; interocular space moderately produced, its apex angulate, a small patch above the antennæ obscure rufo-piceous. Antennæ rather more than one third the length of the body, slightly thickened towards the apex, joints cylindrical. Thorax transverse; sides angulate, straight and parallel behind the middle, thence obliquely converging and faintly sinuate to the apex; anterior angle armed laterally with a small subacute tooth; upper surface subcylindrical, rather deeply excavated transversely on the hinder disc, strongly and deeply punctured. Elytra parallel, regularly rounded at the apex, outer margin very finely serrulate; each elytron with ten rows of punctures, the second and fourth interspaces rather strongly, the eighth less distinctly, costate.

46. **Chalepus amiculus.**

Angustatus, elongatus, subcylindricus, nitidus; subtus niger, femoribus anticis basi fulvis; supra fulvus, scutello capiteque nigris, hoc macula parva inter oculos fulva; thorace transverso, lateribus rotundatis, ante medium sinuatis, ad apicem constrictis; crebre foveolato-punctato, lateribus vittaque lata discoidali nigris; elytris parallelis, lateribus obsolete serrulatis, apice rotundatis, distincte denticulatis; utrisque decem-seriato-punctatis; interspatiis secundo, quarto, sexto et octavo costatis; vitta suturali vix ante apicem abbreviata, nec non linea marginali, a basi ultra medium extensa, nigris.

Long. 2½ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

Head moderately produced between the eyes; front longitudinally sulcate on the medial line, irregularly sculptured on either side. Antennæ half the length of the body, slightly thickened towards the apex; the two lower joints ovate, equal, the third rather longer. Thorax longer than broad; sides rounded, nearly straight and parallel from the base to the middle, sinuate just behind the latter, constricted in front, the anterior angle produced obliquely into a subacute tooth; upper surface transversely convex, slightly excavated on the hinder disc, closely foveolate-punctate; the lateral margin, together with a broad discoidal vitta, black. Elytra broader than the thorax; sides parallel, obsoletely constricted in the middle, the apex regularly rounded; lateral margin obsoletely, the apical one more distinctly, serrulate; each elytron with ten rows of punctures, the second, fourth, sixth, and eighth interspaces costate, the sixth less strongly raised, its margin serrulate.

47. **Chalepus marginatus.**

Elongatus, subtus niger, nitidus; thorace, lateribus exceptis, pectoris medio femoribusque anticis quatuor basi, fulvis; supra subnitidus, fulvus; scutello capiteque nigris, hoc macula frontali sordide fulva; thorace lateribus rotundatis, antice constrictis; rude rugoso-punctato, vitta discoidali lateribusque nigris; elytris parallelis, apice rotundatis, tenuiter serrulatis; utrisque decem-seriato-punctatis; interspatiis secundo quartoque modice, octavo obsolete, costatis; limbo laterali anguste nigro, sutura ante medium anguste nigro-picea.

Long. 2 lin.

Hab. Mexico, Cordova (*Sallé*). A single specimen.

Front moderately produced between the eyes, longitudinally sulcate. Antennæ nearly half the length of the body, subfiliform, slightly thickened towards the apex; joints cylindrical. Thorax transverse; sides rounded, obliquely diverging from the base to the middle, deeply sinuate behind the apex, the apical angle armed laterally with an acute tooth; disc coarsely and strongly punctured, transversely excavated behind the middle. Elytra parallel, regularly rounded at the apex; lateral margin obsoletely, the apical margin finely, serrulate; each elytron with ten regular rows of punctures, the second and fourth interspaces moderately costate, the eighth obsoletely thickened.

48. **Chalepus lateralis.**

Elongatus, parallelus; subtus niger, nitidus; thoracis lateribus, abdominis disco, femoribus basi tibiarumque annulo lato, fulvis; supra subopacus, fulvus, scutello capiteque nigris; thorace transverso, lateribus rotundatis, pone medium fere rectis, ante medium sat abrupte constrictis; disco transversim convexo, pone medium transversim excavato, rude et crebre punctato; lateribus maculaque vix pone medium posita, nigris; elytris parallelis, apice rotundatis, ad apicem minute serrulatis; utrisque decem-seriato-punctatis, sutura nec non interspatiis secundo et quarto modice costatis, interspatio octavo minus distincte elevato; utrisque linea laterali, a basi ad longe pone medium extensa, nigra ornatis.

Long. 2 lin.

Hab. Guatemala, Zapote, Capetillo, Panima in Vera Paz (*Champion*).

Vertex smooth, impunctate; front irregularly sulcate, subrugose; interocular space

slightly produced, obtuse. Antennæ about one third the length of the body, rather slender below the middle, slightly thickened towards the apex; joints cylindrical. Thorax transverse; sides rounded, nearly straight and parallel from the base to the middle, thence deeply sinuate and obliquely converging towards the apex, the anterior angle produced into a subacute tooth; disc transversely convex, transversely excavated behind the middle, closely and coarsely punctured. Elytra broader than the thorax, parallel, regularly rounded at the apex, the latter, together with the lower portion of the sides, faintly serrulate; each elytron with ten regular rows of large deep punctures, the suture, together with the second and fourth interspaces, costate, the eighth less distinctly elevated.

49. Chalepus generosus.

Subelongatus, parallelus, niger, nitidus; femoribus anticis basi, thorace elytrisque rufo-testaceis; illo transverso, ad apicem angustato, lateribus obtuse angulatis; rude foveolato-punctato, vitta angusta discoidali lateribusque nigris; elytris parallelis, apice obtuse rotundatis, minute serrulatis; decem-seriato-punctatis, sutura et interspatiis secundo et quarto æqualiter, octavo minus fortiter, costatis.

Long. 2½ lin.

Hab. GUATEMALA, Sinanja in Vera Paz (*Champion*).

Head smooth and shining; front moderately produced, its surface with an ill-defined rufo-piceous patch; on either side, running along the inner border of the eye, is a deep longitudinal groove. Antennæ about one third the length of the body, filiform, not thickened at the apex; joints cylindrical, the first and second short, equal in length, ovate, the basal one slightly thickened, the third joint nearly half as long again as the second. Thorax about one fourth broader than long at the base; sides straight and very slightly diverging from the base to the middle, thence obliquely converging to the apex, anterior angle armed with a short oblique tooth; subcylindrical, flattened and broadly excavated on the hinder disc, closely covered with foveolate punctures; the lateral margin, together with a narrow discoidal vitta (the latter not extending to the apical margin and also sometimes abbreviated at the base), black. Elytra narrowly oblong-elongate, parallel, the sides finely serrulate, the apex obtusely rounded; upper surface convex on the sides, flattened along the suture; each elytron with ten regular rows of large deep punctures, the suture, together with the second and fourth interspaces, distinctly and equally costate, the eighth less strongly elevated.

50. Chalepus hepburni.

Subelongatus, niger, nitidus, thorace elytrorumque plaga humerali fulvis; thorace transverso, subconico, lateribus bisinuatis; disco crebre et irregulariter foveolato-punctato; macula discoidali nigra; elytris parallelis, apice conjunctim rotundatis; lateribus obsolete, apice distincte, serrulatis; utrisque decem-seriato-punctatis, interstitiis elevato-reticulatis; interspatiis secundo et quarto modice, octavo minus distincte, costatis.

Long. 2⅔ lin.

Hab. MEXICO, Pinos Altos in Chihuahua (*Buchan-Hepburn*).

Front trisulcate; interocular space rather strongly produced, obtuse. Antennæ subfiliform, equal in length to the head and thorax; third joint one half longer than the second. Thorax transverse; sides converging from base to apex, bisinuate, the anterior angle acute, the basal one obtuse; disc transversely convex, closely covered with large irregular punctures. Scutellum transverse, its apex truncate. Elytra narrowly oblong, parallel, the apices conjointly and regularly rounded, the lateral margin obsoletely, the apical one distinctly, serrulate; convex, slightly flattened along the suture; each elytron with ten regular rows of punctures, the interstices thickened, elevate-reticulate; second and fourth interspaces moderately, the eighth less distinctly, costate; the humeral fulvous patch, covering the humeral callus, commences at the basal margin and runs downwards for about one third the length of the elytron, but does not extend to the lateral margin.

51. **Chalepus posticatus.** (Tab. III. fig. 18.)

Elongatus, postice ampliatus; subtus niger, nitidus; pectoris medio, abdominis basi femoribusque basi, fulvis; supra fulvus, opacus; capite (plaga frontali excepta), thoracis vittis tribus, scutello elytrorumque vitta brevi suturali baseos, tertioque parte apicali, nigris; antennis rigidis, acutis; thorace transverso, pone medium transversim excavato, velutino, punctis magnis vage impresso; elytris a basi apicem versus ampliatis, apice rotundatis, serrulatis, margine apicali hic illic spinis brevibus armato; decem-seriato-punctatis, interspatiis secundo et quarto sat valde costatis.

Long. 4¾ lin.

Hab. NICARAGUA, Chontales (*Belt*).

Face strongly produced between the eyes; vertex and front opaque. Antennæ half the length of the body, robust, rigid, very slightly compressed; two lower joints short, cylindrical, the basal one submoniliform, the second turbinate, the third and fourth equal, each nearly as long as the preceding two united, apical joint acute. Thorax transverse; sides slightly rounded, converging from base to apex, in some specimens obsoletely angulate just before the middle; upper surface transversely excavated on the hinder disc, opaque, impressed, but not very closely, with large shallow punctures; the lateral margin, together with a discoidal vitta, sometimes abbreviated anteriorly, black. Elytra broader than the thorax; sides gradually dilated from the base towards the apex, the apex itself regularly rounded; lateral margin distinctly serrulate, apical margin armed with several short, acute spines; each elytron with ten regular rows of large deep punctures, the second and third interspaces rather strongly costate; a short sutural vitta at the base, together with a large apical patch, covering rather more than the hinder third of the disc, black.

52. **Chalepus suspiciosus.** (Tab. III. fig. 19.)

Subelongatus, subparallelus; subtus niger, nitidus; pectoris medio, abdominis disco et lateribus femoribusque basi fulvis; supra fulvus, subnitidus; antennis, oculis, collo, thoracis vittis tribus, scutello elytrorumque vitta brevi suturali, nigris; thorace transverso, conico, lateribus leviter bisinuatis, disco velutino, pone medium transversim excavato, apice et ad latera irregulariter et leviter foveolato; elytris a basi ad

apicem leviter ampliatis, margine serratis; apice rotundato, integro, spinis longioribus armato; decem-seriato-punctatis, interspatiis secundo et quarto valde, sexto basi, nec non octavo toto, mediocriter costatis.
Long. 4½ lin.

Hab. Panama, Caldera 1200 feet, and David in Chiriqui (*Champion*).—Colombia, Santa Marta.

Head black, the neck shining, the vertex and front opaque, the latter strongly produced between the eyes, its hinder dorsal surface with three short longitudinal sulci, the anterior upper surface with a narrow, distinctly raised longitudinal ridge. Antennæ half the length of the body, robust, rigid, slightly compressed, attenuated towards the apex, the apical joint very acute; basal joint slightly thickened, submoniliform, the second very short, subturbinate, the third and fourth each about twice the length of the second, the fourth being rather shorter than the third. Thorax transverse at the base; conic, the sides obliquely converging from base to apex, obsoletely bisinuate, anterior angle armed laterally with a short acute setiferous tooth; basal margin deeply sinuate on either side; above subcylindrical, broadly depressed and excavated on the hinder disc, irregularly foveolate on the sides and apex; a discoidal vitta, abbreviated anteriorly, together with the lateral margin, nigro-piceous or black. Scutellum oblong-quadrate, its apex obtuse. Elytra narrowly oblong, gradually but slightly increasing in width from the base towards the apex, basal margin strongly lobed, the lobes received into the excavations of the thorax; sides rather strongly serrate; apical margin obtusely rounded, irregularly denticulate and armed on each elytron with four or five spinous teeth; above rather coarsely granulose-punctate, each elytron with ten regular rows of deep punctures; second and fourth interspaces strongly costate, nitidous; basal portion of the sixth interspace, together with the entire eighth, less strongly raised, the latter obsoletely serrulate.

C. normalis, Chapuis, an insect which I have not seen, appears to be closely allied to the present species.

53. **Chalepus alienus.** (Tab. III. fig. 21.)

Subelongatus, ad apicem vix ampliatus, niger; subtus nitidus, pectoris medio, abdominis plaga basali femoribusque basi, fulvis; supra niger, minus nitidus; antennis apice acutis; thorace conico, lateribus leviter bisinuatis; velutino, subcrebre punctato, utrinque vitta lata sublaterali, basi subcallosa, flavo-rufa instructo; elytris oblongis, ad apicem vix ampliatis, ante medium obsolete, pone medium et ad apicem fortius, serrulatis, apice utrinque spinis duabus brevibus armato; decem-seriato-punctatis, interspatiis secundo, quarto, nec non octavo, costatis; flavo-fulvis, apice plagaque magna anchoræformi, a basi ad medium extensa, nigris.
Long. 3½–4 lin.

Hab. Nicaragua (*Sallé*); Panama, Bugaba, Caldera in Chiriqui 1200 feet, David, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).—Colombia (*Goudot*).

Front trisulcate, interocular space strongly produced, obtuse, its upper surface with a short longitudinal ridge. Antennæ half the length of the body, filiform; the five

outer joints closely articulated, the apical one very acute. Thorax transverse, subconic; sides obliquely converging from base to apex, bisinuate; subcylindrical, transversely excavated on the hinder disc, torulose at the base on either side; opaque, irregularly punctured. Elytra narrowly oblong, parallel, finely and subremotely serrulate on the sides; apex conjointly rounded, coarsely denticulate, and armed on either side with two or three large teeth or spines; each elytron with ten regular rows of punctures, their interstices elevate-reticulate; the second and fourth interspaces rather strongly, the eighth moderately, costate, the sixth also costate at base and apex.

54. **Chalepus anchora.**

Odontota anchora, Chapuis, Ann. Soc. Ent. Belg. 1877, p. 18.

Elongatus, ad apicem vix ampliatus, niger; subtus nitidus, pectoris medio, abdominis disco antico et lateribus, femoribusque anticis quatuor basi, flavo-fulvis; supra minus nitidus; thorace subconico, lateribus medio subangulatis; dorso subcylindrico, disco postico transversim excavato, crebre punctato, utrinque vitta lata sublaterali, subcallosa, fulva instructo; elytris parallelis, lateribus ante medium obsolete, pone medium et ad apicem distinctius, serrulatis; utrisque apice breviter trispinosis; decem-seriato-punctatis, interspatiis secundo, quarto et octavo, nec non sexto basi et apice, costatis; utrisque plaga humerali, a basi fere ad tertiam partem longitudinis extensa, fasciaque vix pone medium posita, fulvis.

Long. $3\frac{1}{2}$ lin.

Hab. Mexico (*Sallé*).—Colombia, Santa Marta.

Very closely allied to the preceding species; the thorax more coarsely and closely punctured, the apex of the elytra more obtuse, the five outer joints of the antennæ more loosely articulated, the apical one less acute. I have only seen two specimens of this species—one from Mexico, without precise locality, the other from Colombia; in the Mexican specimen the hinder femora are entirely black, whilst in the Colombian one the sides of the thorax are less distinctly angulate.

VI. *Elytra each with ten rows of punctures, the base with a short additional row next the suture.*

A. *Margin of the elytra serrulate.*

1. *Sutural angles of the elytra entire.*

55. **Chalepus acuticornis.** (Tab. III. fig. 20.)

Odontota acuticornis, Chapuis, Ann. Soc. Ent. Belg. 1877, p. 12.

Elongatus, niger, nitidus; pectoris medio, abdominis plaga basali femoribusque basi fulvis; supra fulvus, capite scutelloque nigris; thorace transverso, subconico, lateribus bisinuatis, medio obtuse angulatis; dorso opaco, pone medium transversim excavato, vage rugoso-punctato; lateribus vittaque discoidali nigris; elytris parallelis, apice rotundatis, lateribus serrulatis, margine apicali spinuloso; utrisque decem, basi extrema undecim, punctatis, striis quinto ad octavum medio interdum confusis; interstitiis elevato-reticulatis; interspatiis secundo et quarto sat valde et æqualiter costatis, octavo toto, sextoque basi et apice, modice elevatis;

plaga communi subpyriformi a basi ad medium extensa apiceque nigris; antennis rigidis, articulis quinque ultimis intime approximatis, articulo ultimo acuto.
Long. 3½–4 lin.

Hab. MEXICO, Cordova (*Höge*), Vera Cruz, Tuxtla, Teapa (*Sallé*); BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); GUATEMALA, Yzabal (*Sallé*), Zapote, San Gerónimo, La Tinta, Tamahu, Chiacam, Panima (*Champion*); NICARAGUA, Chontales (*Belt*).

Front deeply trisulcate; interocular space strongly produced, the apical portion of its upper surface with a short longitudinal ridge. Antennæ nearly half the length of the body, rigid, obsoletely thickened towards the apex, the five outer joints very closely articulated, the apical one very acute. Thorax transverse, subconic; sides obliquely converging from base to apex, bisinuate, obtusely angulate in the middle, anterior angle armed laterally with a short acute tooth; upper surface subcylindrical on the sides and at the apex, transversely depressed and excavated on the hinder disc, covered with coarse but shallow foveolate punctures, the apical margin nearly impunctate. Elytra narrowly oblong, parallel, regularly rounded at the apex, finely serrulate, apical border with a few spinous teeth; convex on the sides, flattened along the suture; each elytron with ten, at the extreme base with eleven, rows of punctures, the fifth to the eighth rows sometimes confused and irregular on the middle disc; second and fourth interspaces strongly and equally costate, the basal portion of the sixth, together with the whole of the eighth, less strongly elevated.

Separated from the two preceding species, to which it is otherwise closely allied, by the presence of the additional short row of punctures at the base of the elytra.

56. **Chalepus contubernalis.**

Elongatus, niger, nitidus; pectoris medio, thorace elytrorumque vitta lata laterali, a basi fere ad medium extensa, fulvis; thorace transverso, subconico, lateribus bisinuatis, disco pone medium transversim excavato, rude et crebre foveolato-punctato, vitta lata discoidali, apice attenuata, nigra; elytris subelongatis, parallelis, apice rotundatis, lateribus tenuiter, apice magis distincte, serrulatis; utrisque decem, basi extrema undecim, seriato-punctatis, interstitiis elevato-reticulatis; interspatiis secundo, quarto et octavo totis, nec non sexto basi, costatis.
Long. 3 lin.

Hab. GUATEMALA, San Gerónimo (*Champion*).

Head nitidous, front strongly trisulcate, the middle groove broad; interocular space strongly produced, obtuse. Antennæ subfiliform, the second joint slightly shorter than the basal one, submoniliform, the third nearly one half longer than the second. Thorax transverse, subconic; sides converging from base to apex, bisinuate, the anterior and posterior angles subacute; upper surface transversely convex, transversely excavated on the hinder disc, strongly, coarsely, and irregularly punctured. Scutellum quadrate-oblong. Elytra subelongate, parallel, rounded at the apex, finely serrulate on the sides, the apical margin denticulate; each elytron with ten, at the extreme base with eleven, regular rows of punctures, their interstices thickened, reticulate; the second and fourth

rather strongly, the eighth, together with the basal portion of the sixth, less distinctly costate; the fulvous vitta which stretches from the base nearly to the middle of the elytra extends inwards from the outer border as far as the second interspace, its apex obliquely truncate.

57. **Chalepus chapuisi.**

Elongatus, niger; subtus nitidus, prosterno rufo-fulvo; supra subnitidus, thorace elytrorumque vitta lata, a basi ad ultra medium extensa, rufo-fulvis; thorace transverso, subconico, lateribus bisinuatis, transversim convexo, disco postico transversim excavato, velutino, subcrebre punctato, vitta lata discoidali nigra instructo; elytris subelongatis, parallelis, apice obtuse rotundatis, serrulatis, apice denticulatis; utrisque decem-, basi extrema undecim-seriato-punctatis, interstitiis vix elevatis; interspatiis secundo, quarto et octavo totis, sextoque basi, costatis.

Long. 3½ lin.

Hab. Mexico, Oaxaca (*Sallé*).

Vertex and front deeply trisulcate, the medial groove broad; interocular space strongly produced, obtusely angulate. Antennæ filiform, robust, about equal in length to the head and thorax; second joint slightly shorter than the basal one, moniliform; third joint nearly twice the length of the second. Thorax transverse, subconic; sides strongly converging from the base to the apex, bisinuate, their posterior angle obtuse, the anterior one produced into a short obtuse tooth; upper surface transversely convex, rather deeply excavated behind the middle, opaque, impressed, but not very closely, with large shallow ill-defined punctures, which are rather more crowded on the sides. Elytra sculptured as in *C. contubernalis*, with this exception, that the interstices between the punctures are less thickened and less distinctly reticulating with each other; the rufo-fulvous vitta, which stretches inwards from the outer margin nearly to the suture, is continued downwards on the outer border and along the first costa to below the middle of the elytra.

58. **Chalepus waterhousii.** (Tab. III. fig. 24.)

Elongatus, subparallelus, niger; subtus nitidus, pectoris medio femoribusque anticis basi, fulvis; supra subopacus; thorace transverso, subconico, ante basin transversim excavato, subcrebre foveolato-punctato; fulvo, marginis basalis medio, plaga transversa ante basin lateribusque, his ante apicem abbreviatis, nigris; elytris subparallelis, apice rotundatis, lateribus pone medium apiceque fortius serrulatis utrisque decem-, basi extrema undecim-seriato-punctatis; interspatiis secundo valde, quarto apice, sexto basi, nec non octavo toto, mediocriter costatis; utrisque plaga basali, callum humerale amplectente, fulva.

Long. 3½ lin.

Hab. Guatemala, Vera Paz (*Champion*).

Vertex shining, impunctate; front rather strongly produced, 5-sulcate, the intermediate pair of sulci ill-defined. Antennæ half the length of the body, filiform; basal joints subovate, slightly thickened, the second shorter than the first, nodose; third joint equal in length to the preceding two united, the sixth distinctly shorter than either the fifth or seventh, the eighth to the tenth equal in length, the eleventh rather

longer, its apex subacute. Thorax transverse, about one third broader than long at the base; sides slightly rounded and converging from the base to the apex, the anterior angle with a short lateral tubercle; basal margin deeply excavated on either side the medial lobe; transversely convex, rather deeply excavated transversely on the hinder disc immediately in front of the basal lobe; surface covered with large foveæ, shallow on the sides, more deeply impressed on the disc. Elytra subelongate, strongly lobed at the base, parallel, very feebly dilated towards the apex, the latter entire, and regularly rounded; lateral margin finely, its hinder third, together with the apical border, rather coarsely, serrulate; above convex on the sides, flattened along the suture; each elytron with ten, at the extreme base with eleven, regular rows of large deep punctures, the second interspace strongly, the eighth, together with the extreme apex of the fourth and the basal fourth of the sixth, moderately costate; each elytron with an irregular fulvous patch, covering the humeral callus, and extending downwards from the base nearly to the middle of the disc.

2. *Sutural angles of the elytra conjointly emarginate.*

59. **Chalepus amplipennis.** (Tab. III. fig. 17.)

Elongatus, postice ampliatus; subtus cum capite niger, nitidus, pectoris medio femoribusque basi fulvis; supra subopacus, fulvus aut rufo-fulvus; capite inter oculos antrorsum valde producto, et antice plaga fulva ornato; antennarum articulis compressis, in mare dorso cristatis; thorace quam longiori vix latiori, conico, lateribus subangulatis, disco medio depresso, utrinque toruloso, velutino, lateribus vittaque discoidali nigris; scutello nigro; elytris a basi apicem versus modice ampliatis, apice rotundatis, sutura conjunctim subquadratim emarginatis; limbo distincte explanato, serrato; dorso deplanatis; utrisque decem-, basi extrema undecim-punctatis; interspatiis secundo valde, sexto basi nec non octavi dimidio antico mediocriter, costatis; fulvis, dimidio postico, nec non linea suturali, nigris.

Var. A. Elytris rufo-fulvis, linea suturali nigra.

Long. 4 lin.

Hab. Panama, Volcan de Chiriqui 2500 to 6000 feet (*Champion*).

Interocular space very strongly produced, opaque, its hinder half faintly grooved on either side, its anterior portion obscure fulvous, its medial line with a slightly raised longitudinal ridge. Antennæ half the length of the body, compressed, tapering from the sixth joint to the apex; the third joint to the ninth cristate in the male, less distinctly so in the female; two lower joints short, equal, the first thickened, submoniliform, the second subovate, the third subcordate, and equal in length to the preceding two, the fourth and following ones to the tenth nearly equal in length, each distinctly shorter than the third. Thorax rather broader than long at the base, conic; sides notched just in front of the posterior angle, slightly but distinctly angulate just beyond the middle, thence obliquely converging to the apex, the anterior angle armed with an obtuse lateral tooth; above opaque, the sides abruptly deflexed, coarsely foveolate-punctate, the disc depressed, its hinder half broadly excavated; surface opaque, irregularly and feebly foveolate-punctate, the medial line with a faintly impressed narrow longitudinal groove;

basal margin rather deeply excavated on either side. Elytra dilated from the base to the hinder angle, thence narrowly rounded to the apex, the latter deeply quadrate-emarginate; outer margin distinctly dilated, finely serrulate, more coarsely so posteriorly and on the apical border; each elytron with ten, at the base with eleven, rows of large punctures; second interspace strongly costate, the sixth at its base, together with the anterior half of the eighth, moderately elevated.

The cristate antennæ will at once separate this species from its congeners.

60. **Chalepus deyrollei.**

Odontota deyrollei, Chapuis, Annales de la Société Ent. de Belgique, xx. p. 8 (1877).

Elongatus, niger; subtus nitidus, pectoris medio, femoribus anticis basi nec non abdominis limbo, fulvis aut rufo-fulvis; supra subopacus; fronte antica rufo-fulvo maculata; thorace transverso, conico, lateribus bisinuatis, convexo, disco postico transversim excavato, rude rugoso-punctato, rufo-fulvo, lateribus vittaque discoidali lata, interdum antice abrupte angustata, nigris; elytris subparallelis, postice paullo ampliatis, apice rotundatis, serrulatis, apice serratis, angulo suturali conjunctim subangulato-emarginatis; utrisque decem-, basi undecim-seriato-punctatis, interstitiis elevatis, inter se reticulatis; interspatiis secundo valde, octavo modice, quarto sextoque obsolete, costatis; vitta lata laterali a basi apicem versus plus minusve extensa, rufo-fulva.

Long. $3\frac{1}{2}$–$3\frac{3}{4}$ lin.

Hab. Mexico, Cordova, Puebla (*Sallé*).

Vertex trisulcate; interocular space strongly produced. Antennæ filiform; joints cylindrical, the third equal in length to the preceding two united. Thorax transverse, conic; sides converging from the base to the apex, bisinuate; subcylindrical, transversely excavated on the hinder disc, torulose on either side behind the middle, coarsely rugose-punctate, the excavated surface nearly free from punctures. Elytra subparallel, slightly dilated towards the apex, the latter conjointly and regularly rounded, the lateral margin serrulate, the apical border rather strongly dentate; subnitidous; each elytron with ten, at the extreme base with eleven, rows of punctures, their interstices thickened, elevate-reticulate; the second interspace strongly, the eighth moderately, and the fourth and sixth, together with the suture, obsoletely costate.

Separated from *C. omogerus* by the regularly rounded and less strongly dentate apices of the elytra, as well as by the slightly elevated fourth and sixth interspaces; the insterstices between the punctures are also thickened and reticulate with each other.

61. **Chalepus omogerus.** (Tab. III. fig. 16.)

Odontota omogera, Crotch, Proc. Acad. Phil. 1873, p. 80[1]; Horn, Trans. Amer. Ent. Soc. 1883, p. 295[2].

Elongatus, postice ampliatus, niger; subtus nitidus, thoracis medio femorumque anticorum basi fulvis; supra opacus; thorace transverso, conico, lateribus bisinuatis, convexo, pone medium transversim excavato, rude rugoso-punctato, utrinque vitta velutina torulosa rufo-fulva instructo; elytris subelongatis, postice ampliatis; apice subacute rotundatis, angulo suturali conjunctim, subquadratim emarginatis; margine

laterali serrato, margine apicali forte denticulato; utrisque decem-, basi extrema undecim-seriato-punctatis, interstitiis minus distincte incrassatis, prope suturam planis; interspatiis secundo valde, octavo modice, costatis; utrisque macula basali rufo-fulva ornatis.

Var. A. Elytrorum vitta lata laterali retrorsum plus minusve extensa, rufo-fulva. (*Odontota palliata*, Chapuis, Ann. de la Société Ent. de Belg. 1877, p. 8.)

Long. $3\frac{1}{2}$–$3\frac{3}{4}$ lin.

Hab. North America, Arizona [2].—Mexico [2], Oaxaca, Cordova, Vera Cruz, Tuxtla, Misantla, Jalapa, Yolos, Juquila, Tapansacualco, Puebla (*Sallé*, *Höge*), Tampico [1]; Guatemala, Dueñas, Capetillo, San Gerónimo, Panima, Chacoj, Cubilguitz, Senahu, Cerro Zunil 4000 feet, Las Mercedes 3000 feet; Panama, Volcan de Chiriqui 2500 feet (*Champion*).

Vertex trisulcate; interocular space strongly produced, a small patch on its anterior surface rufo-fulvous. Antennæ filiform, nearly half the length of the body, the third joint nearly equal in length to the preceding two united. Thorax transverse, conic; sides obtusely angulate, bisinuate; transversely convex, flattened and transversely excavated on the hinder disc, coarsely and irregularly punctured, a smooth torulose vitta on either side rufo-fulvous. Elytra elongate-ovate, slightly dilated posteriorly; apices conjointly subacutely rounded, the apical limb distinctly dilated, broadly and deeply subquadrate-emarginate at the suture, its outer edge strongly dentate, the lateral margin serrulate; each elytron with ten, at the extreme base with eleven, rows of punctures, the interstices between the punctures nearly plane; the second interspace strongly, the eighth moderately, costate, the basal portion of the sixth interspace also slightly elevated; at the base of each elytron is a rufo-fulvous patch, which varies greatly in size, in some specimens being confined to a small spot, in others (var. A) covering nearly the whole of the anterior half of the elytron.

62. **Chalepus univittatus.**

Elongatus, postice paullo ampliatus, niger; subtus nitidus, capite nigro, pectoris medio femoribusque anticis basi fulvis; supra opacus, thorace elytrisque fulvis, illo vitta discoidali, basi quadratim ampliato, lateribus, nec non elytrorumque vitta suturali, nigris; thorace transverso, lateribus a basi ad apicem bisinuatis, supra subcylindrico, disco postico transversim excavato; scutello nigro; elytris a basi apicem versus paullo ampliatis, apice subangulato-rotundatis, ad suturam quadratim emarginatis; margine laterali, evidenter, apicali fortius, serrulatis; utrisque decem-, basi undecim seriato-punctatis, interspatiis secundo sat valde, quarto octavoque minus distincte, costatis.

Long. 4 lin.

Hab. Mexico, Yolotepec (*Sallé*).

Vertex trisulcate; interocular space strongly produced. Antennæ about one third the length of the body, filiform, slightly thickened towards the apex; joints cylindrical, the third to the fifth very slightly compressed; two lower joints short, equal, the third rather longer than the preceding two united. Thorax transverse; sides converging from the base to the apex, bisinuate; upper surface transversely convex, rather deeply excavated transversely on the hinder disc, coarsely and closely, but not very deeply,

rugose-punctate. Elytra very slightly increasing in width from the base towards the posterior angle, thence subacutely rounded to the apex, conjointly quadrate-emarginate at the sutural angle, distinctly serrulate, the serratures stronger at the apex than on the sides; each elytron with ten, at the extreme base with eleven, rows of punctures, the second interspace strongly, the fourth and the eighth more or less distinctly, costate.

Nearly allied to *C. omogerus*, Crotch. Narrower, the second interspace less strongly costate, the serratures at the apices of the elytra smaller.

63. Chalepus palmeri.

Subelongatus, niger; subtus nitidus, thorace inferiori, coxis femoribusque anticis basi rufo-fulvis; supra opacus, capite inter oculos modice angulatim producto, plaga parva rufo-testacea instructo; thorace rufo-testaceo, crebre et fortiter punctato, utrinque toruloso, lateribus angulatis; elytris anguste oblongis, serrulatis, ad angulum suturalem subquadratim emarginatis; utrisque decem-, basi undecim-seriato-punctatis; interspatiis secundo valde, octavo mediocriter, costatis; interspatiis quarto sextoque leviter elevatis; utrisque plaga basali callum humeralem amplectente, rufo-testacea ornatis.

Long. $3\frac{1}{3}$ lin.

Hab. MEXICO, Monclova in Coahuila (*Dr. Palmer*).

Interocular space moderately produced, 5-sulcate, the middle sulcus short, terminated anteriorly by a longitudinal ridge. Antennæ less than half the length of the body, filiform, slightly thickened beyond the middle; joints cylindrical, the two lower ones equal, the basal joint slightly thickened, the third nearly equal in length to the preceding two united, the fourth about two thirds the length of the third, the seventh to the tenth short, equal, the sixth still shorter, subturbinate. Thorax transverse; sides straight and nearly parallel from the base to beyond the middle, thence obliquely converging and slightly sinuate to the apex, the anterior angle armed with a short oblique tubercle; above transversely convex, flattened and broadly excavated on the hinder disc; on either side is a longitudinal ill-defined irregular torulose space, which extends from the basal nearly to the apical margin; on the medial line is also a very fine longitudinal groove. Elytra narrowly oblong, subparallel, rounded at the apex, deeply subquadrate-emarginate at the sutural angle; margin serrulate, the apical serratures rather coarser than those on the side; upper surface granulose; each elytron with ten, at the base with eleven, rows of deeply punctured striæ; the second interspace strongly, the eighth moderately, costate, the latter finely serrulate on the hinder disc, the fourth and sixth faintly costate at the base and apex, the suture also distinctly elevated; each elytron with a wedge-shaped rufo-fulvous basal patch, which stretches along the base from the suture nearly to the lateral margin, and extends downwards (covering the humeral callus) for about one fourth the length of the elytron.

B. *Margin of the elytra entire, not serrulate.*

64. **Chalepus signaticollis.** (*C. notaticollis* *, Tab. III. fig. 25.)

Elongato-ovatus, modice convexus, nitidus, niger, æneo vix micans; thorace crebre punctato, utrinque macula parva rufa ornato; elytris anguste oblongis, utrinque decem-, basi undecim-seriato-punctatis, interspatiis quarto et octo modice costatis; striis inter has costas medio confusis, fulvis; vitta lata suturali, basi angustata, ante apicem abbreviata, æneo-nigra.

Long. 3 lin.

Hab. Mexico, Puebla (*Sallé*).

Face angularly produced between the eyes; front excavated, rugose. Antennæ rather longer than the head and thorax, slightly thickened towards the apex; joints cylindrical, the lower two short, equal, the third one half longer than the second, the five upper ones forming a slender club. Thorax transverse; sides obtusely rounded, converging from the base to the apex, more quickly so anteriorly, the apical angle armed with a short, oblique, obtuse tooth; upper surface subcylindrical, transversely excavated on the hinder disc, closely covered with large variolose punctures; on either side on the anterior disc is a small rufous patch. Elytra narrowly oblong-ovate; sides nearly parallel, the apex regularly rounded, the outer margin entire; nitidous; each elytron with ten, at the extreme base with eleven, rows of deep punctures; interstices plane; second interspace broad, flattened, the fourth and eighth moderately costate, the striæ between these costæ confused and less regularly arranged in the middle part of their course.

Species unknown to me, but apparently belonging to this Genus.

Odontota gregorii.

Odontota gregorii, Chapuis, Ann. Soc. Ent. Belg. xx. p. 6 (1877) [1].

"Oblongo-elliptica, nigra, vertice antico carinato; pronoto transverso, lateraliter subrotundato, dense punctato, utrinque ad marginem vitta flava, sublævi; elytris postice ampliatis, tenuissime serrulatis, (octo-) striato-punctatis, punctis transversis, interstitiis 2° et 6° costatis, nigro-fuscis, interstitio 4° basi elevato et breviter flavo; femoribus partim flavis.

"Long. 6½ mill."

Hab. Mexico [1].

I have not seen any species answering to the above description. In Dr. Chapuis's paper it stands immediately before *C. morio*.

Hispa atricornis.

Hispa atricornis, Say, Bost. Journ. Nat. Hist. i. p. 196 (May 1835) [1]; Leconte, Complete Writings of Thomas Say, ii. p. 666 (1859).

"Above yellowish; antennæ, thoracic line, and tip of elytra black. Inhabits Mexico.

* This insect is figured as *C. notaticollis*; but I have subsequently discovered that the name has been used by Dr. Chapuis for another species belonging to the same genus.

Body above yellowish fulvous; head impunctate; antennæ black; thorax with rather large punctures, a black dorsal line; scutellum black; elytra serrate, with double series of punctures, and interstitial, slender, elevated lines; tip black-brown, not more than one fifth of the whole surface of the elytra; pectus and postpectus with a lateral black vitta, dilating behind; feet black, thighs fulvous at bases; venter black, yellowish each side. Length more than one fifth of an inch."

Hab. Mexico [1].

Dr. Chapuis has included this species in the present genus, placing it not far from *C. bellulus*. Say's description does not well agree with the subsection to which Chapuis has assigned it.

Section 2. *Four to nine upper joints of the antennæ united into a single piece.*

† *Interocular space not distinctly produced; four to five upper joints of the antennæ closely united.*

* *Elytra sinuate-punctate, irregularly elevate-reticulate.*

OCTOTOMA.

Octotoma, Suffrian, Wiegm. Archiv, 1866, i. p. 234; Horn, Trans. Am. Ent. Soc. x. p. 299.

The species of this peculiar genus may be at once known from any other American form by the strongly raised anastomosing ridges which extend irregularly over the whole disc of the elytra. The different species are very closely allied, and it will require long careful study, and the examination of a long series of each specific form, to define accurately their proper limits. The genus ranges from the United States of North America to Brazil.

1. **Octotoma scabripennis.** (Tab. IV. fig. 2.)

Octoma scabripennis, Guér. Icon. de Règne Anim. iii. Texte, p. 279 [1].

Sat elongata, dorso deplanata; subtus nitida, nigra, thoracis inferioris lateribus pedibusque piceis, his nigro maculatis; supra subnitida, piceo-fulva aut picea, vertice thoracisque plagis nigris; thorace fortiter punctato, disco excavato; elytris anguste oblongis, apicem versus paullo ampliatis, serrulatis, apice obtuse rotundatis, magis fortiter serratis, nigro-cupreis, seriato-punctatis, rete elevato irregulari, hic illic valde cristatis.

Mas. Elytrorum lateribus ante apicem sinuatis, angulo postico extrorsum producto.

Fem. Elytrorum lateribus ante apicem non sinuatis, angulo postico extrorsum non producto.

Long. 2½–3 lin.

Hab. Mexico [1], Juquila, Guanajuato, Oaxaca (*Sallé, Höge*); Guatemala, San Gerónimo (*Champion*); Nicaragua, Chontales (*Belt*).

Vertex subrugose-punctate. Antennæ rather longer than the head and thorax, piceo-fulvous, the upper joints sometimes black or nigro-piceous. Thorax transverse;

sides in the male straight and diverging from the base to some distance beyond the middle, thence abruptly converging to the apex; nearly parallel posteriorly, then converging and sinuate from immediately above the middle towards the apex in the female, the anterior angle in both sexes armed with a stout subacute tooth; upper surface rugose-punctate, an irregular vitta on the sides, together with four longer depressions on the disc, black, the two anterior depressions transverse, often confluent, and in some specimens concolorous with the general surface of the thorax. Scutellum subquadrate. Elytra narrowly oblong, slightly increasing in width towards the posterior angle, the latter distinct in both sexes, abruptly dilated laterally in the male; the lateral margin armed with a number of short acute teeth, the apical margin obtusely rounded, more coarsely serrate; upper surface finely seriate-punctate; each elytron with a number of strongly raised ridges, which anastomose, and form an irregular network over the surface; on the middle disc and again at the apex near the suture, they are more strongly elevated than on the other portions of the surface.

2. **Octotoma championi.**

Oblongo-elongata, dorso subdeplanata, nigra, nitida; pedibus nigro-piceis, femorum basi genubusque pallide rufo-piceis; capite thoraceque piceo-rufis, illo vertice antennarumque clavo nigris; thorace transverso, lateribus rotundatis, dorso nigro maculato, crebre et fortiter punctato, disco posteriori utrinque excavato; elytris oblongis, apicem versus ampliatis, lateribus serratis, ante angulum posticum sinuatis, angulo ipso late extrorsum dilatato, fortiter serrato; cupreis, seriato-punctatis, rete irregulari, fortiter sed irregulariter elevatis.

Long. 2½ lin.

Hab. GUATEMALA, Capetillo (*Champion*). A single specimen.

Vertex opaque, minutely granulose, and, together with the antennal club, black. Thorax nearly twice as broad as long; sides rounded, more quickly converging anteriorly, the anterior angle produced into a stout, subacute, slightly excurved tooth; surface transversely convex, strongly and deeply punctured on the sides, more closely and rather less strongly punctured on the middle disc; hinder disc broadly excavated on either side, the anterior disc with faint traces of two similar excavations. Elytra oblong, slightly dilated posteriorly; sides serrate, sinuate just before reaching the posterior angle, the latter broadly dilated laterally, coarsely serrate; upper surface sculptured as in *O. scabripennis*.

Separated from the above-named species by its broader thorax and by the much more broadly dilated posterior angles of the elytra—in other respects very similar.

3. **Octotoma marginicollis.** (Tab. IV. fig. 1.)

Octotoma marginicollis, Horn, Trans. Am. Ent. Soc. x. p. 300, t. 9. fig. 9.

Subcuneiformis, depressa, picea, subnitida; subtus nitida, pedibus piceo-fulvis, antennis (basi excepta) scutelloque flavis; thorace transverso, rude rugoso-punctato, ante medium et ad basin transversim excavato, flavo, piceo maculato; elytris oblongis, pone medium paullo ampliatis, apice rotundatis, irregulariter serrulatis,

angulo postico extrorsum vix producto, rotundato; seriato-punctatis, rete elevato, irregulari ante medium minus elevato et laxius reticulato; flavo-piceis, macula parva basali, altera discoidali, vix ante medium posita, margineque apicali, flavis; femoribus inermibus.

Long. 2½ lin.

Hab. North America, Arizona (*Horn*).—Mexico, Monclova in Coahuila (*Dr. Palmer*), Guanajuato (*Sallé*).

Vertex impressed with a shallow groove. Antennæ rather longer than the head and thorax; joints cylindrical, the five upper ones forming an oval club, the two lower ones pale piceous. Thorax transverse; sides straight and nearly parallel from the base nearly to the apex, thence quickly converging to the anterior angle, the latter produced into a subacute tooth; disc coarsely and closely rugose-punctate, transversely excavated before, and again behind the middle, the space between forming an ill-defined transverse elevation, from the middle of which a short perpendicular ridge runs backwards to the basal margin, dividing the hinder depression into two sections. Elytra oblong; sides parallel anteriorly, slightly dilated behind the middle, rounded at the apex, the hinder angle slightly produced laterally, broadly rounded; outer margin finely but distinctly serrulate; disc punctate-striate, the whole surface covered with a number of raised piceous reticulations, which form an irregular network over the surface, more especially on the hinder half, the reticulations on the anterior disc being less raised and anastomosing less freely with each other than those behind the middle of the elytra; an irregular longitudinal ridge running upwards from the middle disc to the basal margin.

Broader and shorter than *O. scabripennis*, the reticulations on the anterior half of the elytra less distinctly raised; more variable in tint, in some specimens the entire disc being dark piceous; in one from Guanajuato the anterior disc (including its reticulations) is pale piceo-fulvous. This insect, described under the above name by Dr. Horn, agrees with *O. plicatula*, Fabr., a North-American species; but differs from *O. scabripennis* and *O. championi* in its femora being unarmed.

** *Elytra seriate-punctate; interspaces plane or costate.*

a. *Antennæ not longer than the head and thorax together, four to five upper joints forming a distinct club.*

BRACHYCORYNA.

Brachycoryna, Guérin, Icon. du Règne Anim. iii. Texte, p. 280.

Corpus breviter oblongum, convexum. *Caput* inter oculos fere planum, antrorsum non productum; *antennis* quam caput cum thorace brevioribus, articulis brevibus, cylindricis, ultimis quatuor vel quinque incrassatis, clavam ovatam formantibus. *Thorax* transversus. *Elytra* elevato-vittata, interspatiis biseriato-punctatis. *Pedes* breves, simplices; *unguiculis* contiguis.

The late Dr. Chapuis, in his 'Genera des Coléoptères,' has omitted all notice of the

above generic form, the characters of which are clearly given by Guérin in the specific description of *Brachycoryna pumila*, the species on which it was founded by that author. Von Harold (Mun. Catal.) subsequently placed the insects in *Octotoma*, a genus with which, the structure of the antennæ excepted, it has no affinity.

Since the earlier part of this work was published, I have, through the kindness of Dr. Horn, received a specimen of *Stenopodius flavidus* of that author. It belongs to the present section of the family, and stands close to *Brachycoryna*. It agrees with that genus in possessing very short antennæ, but differs in the produced anterior margin of the thorax, and in the greater number of punctate-striæ on its elytra. *S. flavidus* is a native of California, and will probably, sooner or later, be found in Central America.

1. **Brachycoryna pumila.** (*Physocoryna scabra*, Tab. IV. fig. 3.)

Brachycoryna pumila, Guér. Icon. du Règne Animal, iii. Texte, p. 280[1].

Hab. Mexico, Jalapa (*Höge*); Guatemala, San Gerónimo, Dueñas, Zapote (*Champion*); Nicaragua, Chontales (*Janson*).—Colombia, Cartagena [1].

Guérin, in his description of the species, gives the elytra as unicolorous. In all the specimens that I have seen they are more or less spotted with piceous or black.

2. **Brachycoryna fulvipes.**

Anguste oblonga, convexa, subnitida; subtus nitida; pedibus elytrorumque puncto prope suturam posito, fulvis; thorace rugoso-punctato; elytris tricostatis, costis exterioribus duabus late interruptis, interspatiis fortiter biseriato-punctatis.

Long. 1 lin.

Hab. Panama, Tolé (*Champion*).

Vertex granulose, impressed on the medial line with a deep longitudinal fovea. Antennæ rather shorter than the head and thorax; joints cylindrical, gradually increasing in thickness from the third to the sixth; this last nearly as long as the preceding two united, and together with the five upper joints, which are closely united, forming an oblong acute club. Thorax scarcely longer than broad; sides slightly rounded, parallel at the base, converging towards the apex; upper surface subcylindrical, granulose, coarsely and closely punctured, the medial line with a longitudinal groove. Elytra oblong, parallel, regularly rounded at the apex, the outer margin finely serrulate; above convex, each elytron with three strongly elevated costæ, the inner one, which is interrupted below the basilar space, terminating some distance before reaching the apical margin, its apex curving abruptly outwards, and the outer two, which are shorter than the preceding one, interrupted for the greater part of their course, their apices being confluent and abruptly elevated; spaces between the costæ each with a double row of large deep punctures; on the inner costa, near its middle, is a small fulvous spot.

This species, of which a single specimen only is known to me, differs from the preceding in having the five instead of the four outer joints coalescent.

b. *Antennæ distinctly longer than the head and thorax together, the amalgamated apical joints compressed or cylindrical.*

MICRORHOPALA.

Microrhopala, Baly, Ann. & Mag. Nat. Hist. 3rd ser. xiv. p. 268 (1864).

The insects entering into the present genus form a natural group, closely allied to *Uroplata,* but separated by the nearly plane interocular space and by the more regular oval form. The present species, four in number, inhabit North and Central America, one (*M. sallæi*) being also found in Colombia.

1. **Microrhopala pulchella.**

Microrhopala pulchella, Baly, loc. cit. p. 270[1].

Var. A. Elytris rufo-fulvis, plaga communi subscutellari, macula parva subhumerali, fascia communi vix pone medium maculaque subapicali, metallico-cæruleis.

Var. B. Thorace fusco maculato.

Hab. MEXICO[1] (*coll. Baly,* type), Teapa (*Pilate*), Cordova, Vera Cruz (*Sallé*); HONDURAS (*Sallé*).

2. **Microrhopala perforata.** (Tab. IV. fig. 4.)

Microrhopala perforata, Baly, loc. cit. p. 269[1].

Var. A. Elytrorum macula posteriori obsoleta.

Var. B. Elytrorum macula obliqua antice dilatata, trigona.

Var. C. Elytrorum maculis fere deletis.

Hab. GUATEMALA (*coll. Baly,* type).—COLOMBIA[1], Cartagena (*coll. Baly ex coll. Laferté,* vars. A, C).

The present and the preceding species stand very close to each other; the differences in coloration between the two are, however, constant, and they come from distinct localities.

3. **Microrhopala sallæi.**

Microrhopala sallei, Baly, loc. cit. p. 271[1].

Hab. MEXICO[1], Oaxaca, Capulalpam (*coll. Baly,* type; *Sallé*); GUATEMALA[1] (*coll. Baly*).

4. **Microrhopala rubrolineata.** (Tab. IV. fig. 5.)

Microrhopala rubrolineata, Mann. Bull. Mosc. ii. p. 307 (1843)[1]; Horn, Trans. Am. Ent. Soc. x. p. 292[2].

Anguste ovata, convexa; subtus nigra, cyaneo tincta, supra nigro-ænea aut metallico-cærulea; thorace conico, crebre punctato; elytris anguste oblongis, minute serrulatis, utrisque octo-, basi nono-seriato-punctatis.

***Var.* A. Thorace utrinque vitta aut macula submarginali elytrisque vitta discoidali ante apicem abbreviata, punctoque subapicali, hoc sæpe obsoleto, sordide fulvis.**

***Var.* B. Thorace immaculato; elytro utroque vitta lata, postice angustata et abbreviata, sordide fulvo. (*M. vulnerata*, Horn, Trans. Ent. Soc. x. p. 292 [3].)**

***Var.* C. Thorace ut in A, elytrorum vitta fulva obsoleta. (Var. *M. signaticollis*, Lec. Proc. Acad. Phil. 1859, p. 84 [4]; Horn, loc. cit. p. 292.)**

Long. 2 lin.

Hab. North America, California [1 2], Tejon [4], Arizona [3] (*Horn*).—Mexico, Northern Sonora (*Morrison*).

The fulvous markings both of the thorax and of the elytra apparently vary greatly in this species. I have only given the principal forms of coloration above, but intermediate grades exist. *M. rubrolineata* is very closely allied to *M. xerene*, Newman, but may be known by its smaller size and narrower and more conical thorax; the serratures also on the outer margin of the elytra are nearly obsolete in the latter species.

††*Interocular space distinctly produced; four upper joints of the antennæ consolidated into a single piece.*

UROPLATA.

Uroplata, Guérin, Icon. du Règne Ann. iii. Texte, p. 274; Baly, Ann. & Mag. Nat. Hist. 3rd ser. xiv. p. 335 (1864).

Uroplata is closely allied to *Chalepus*, being only separated from that genus by the soldering together of the four upper joints of the antennæ. As a rule the insects belonging to the two genera can be readily separated; but in certain species of *Chalepus* (*morio* and its allies) several of the upper joints are so closely articulated with each other, and at the same time so densely clothed with adpressed hairs, that it requires a close examination to ascertain whether they are distinct or consolidated w th each other.

Uroplata, taken as a whole, is more heterogeneous than *Chalepus* in the form both of its antennæ and of its elytra; it probably, next to the latter genus, is also more numerous in species than any other (with perhaps the exception of *Hispa* proper) in the family.

The species are found in Central and South America; none, so far as my knowledge extends, occurring in the United States or in any other part of North America; the insects placed by Von Harold in his Catalogue as inhabiting the northern continent belong to the genus *Chalepus*.

TABLE OF SPECIES.

A. Vertex and front impressed with from two to five deep longitudinal grooves.
 a. Elytra each with eight regular rows of punctures.
  o. Elytra emarginate at the sutural angle.—*explanata, rodriguezi, fairmairei.*
  oo. Apices of the elytra entire.—*vittatipennis, sallæi.*
 b. Elytra each with eight, at the extreme base with nine, rows of punctures.
  o. Elytra emarginate at the sutural angle.—*distincta.*
  oo. Apices of the elytra entire.—*chevrolati, candezei, melanura, beata.*
 c. Elytra each with ten, at the extreme base with eleven, rows of punctures.
  o. Elytra rounded at the apex, emarginate at the sutural angle; apical margin spinous. —*bellicosa.*
  oo. Posterior angle of the elytron laterally produced.—*aterrima.*

B. Vertex and front plane, often impressed on the medial line with a shallow longitudinal groove; anterior surface of the front in some species finely carinate.
 a. Elytra each with eight rows of punctures; posterior angle not laterally produced.
  o. Elytra more or less distinctly emarginate at the sutural angle.—*championi, consociata, fulvescens, emorsitans, dimidiata, elegantula, aberrans.*
  oo. Apex of each elytron rounded, entire.—*decepta.*
  ooo. Apices of the elytra conjointly rounded, entire.—*clypeata, limbata, belti.*
 b. Elytra each with eight regular rows of punctures; posterior angle laterally produced.
  o. Humeral callus strongly elevate-cristate.—*elevata, buqueti, centromaculata.*
  oo. Humeral callus not elevate-cristate.—*hæmatopyga.*
 c. Elytra each at the extreme base with nine, before the middle with eight, and on the hinder disc with nine or ten, rows of punctures; posterior angle laterally produced.—*fulvopicta.*
 d. Elytra each with ten, at the extreme base with eleven, rows of punctures.
  o. Posterior angle of the elytron not produced; apical margin more or less strongly spinose.—*pascoei, armata, distinguenda.*
  oo. Posterior angle of the elytron not produced; apical margin finely serrate or serrulate.—*excisa, westwoodi.*
  ooo. Posterior angle of the elytron produced laterally into a more or less acute triangular plate.—*fulvopustulata, armigera, variegata, nebulosa, dolorosa, melancholica.*

A. *Vertex and front impressed with from two to five deep longitudinal grooves.*

a. *Elytra each with eight regular rows of punctures.*

o. *Elytra emarginate at the sutural angle.*

1. **Uroplata explanata.** (Tab. IV. fig. 6.)

Elongata, postice ampliata; subtus nitida, supra subnitida, nigra; antennis compressis, articulis intermediis cristatis; clypeo lamina transversa bifida armato; thorace subconico, lateribus breviter bisinuatis, transversim convexo, pone medium depresso, crebre punctato, utrinque vitta sublaterali bicallosa impunctata fulva; elytris ad apicem ampliatis, distincte, apicem versus fortius, serrulatis, margine apicali dilatato, ad suturam late quadratim emarginato; utrisque octo-seriato-punctatis, interspatio secundo valde costato.

Long. 3–3¼ lin.

Var. A. Elytris fulvis, plaga communi subtrigona, a basi fere ad medium extensa, linea submarginali infra

basin apiceque, nigris, purpureo tinctis, vitta submarginali interdum obsoleta. (*Odontota explanata*, Chapuis, Ann. Soc. Ent. Belg. xx. p. 5[1].)

Hab. MEXICO.—COLOMBIA [1], Magdalena River, Bogota.

Var. B. Elytris fulvis, apice lineaque suturali nigris.

Hab. MEXICO, Cordova (*Sallé*), Jalapa (*Höge*).

Var. C. Elytris nigris, purpureo tinctis, plaga humerali, a basi ad pone medium extensa, fulva.

Hab. MEXICO, Cordova, Misantla, Oaxaca (*Höge*).—GUATEMALA, Senahu in Vera Paz, Cerro Zunil 4000 to 5000 feet, Capetillo (*Champion*); NICARAGUA, Chontales (*Janson*); PANAMA, Volcan de Chiriqui 2500 to 4000 feet, Caldera 1200 feet (*Champion*).

Head with an æneous tinge; vertex trisulcate, the lateral grooves deeply impressed; apex of the clypeus produced into a transverse bifid plate. Antennæ rather more than half the length of the body; first and second joints short, subnodose, the rest of the joints compressed, the third to the seventh cristate; the joints from the eighth to the apical one gradually decreasing in width. Thorax transverse, subconic; sides converging from the base to the apex, slightly bisinuate; transversely convex, flattened and excavated on the hinder disc, coarsely punctured; a broad bicallose impunctate vitta on either side fulvous. Elytra gradually increasing in width towards the apex; sides finely serrulate; apical margin dilated, more strongly serrate, broadly subquadrate-emarginate at the sutural angle; each elytron with eight regular rows of punctures, the second interspace strongly costate.

The three types of coloration of the elytra which I have indicated appear to be fairly constant, intermediate forms rarely occurring in a long series of specimens.

In this species the four upper joints of the antennæ, although closely amalgamated, are indicated by notches on the upper margin of the club; this probably misled Dr. Chapuis, and caused him to place the species in *Chalepus*.

2. **Uroplata rodriguezi.** (Tab. IV. fig. 7.)

Uroplata (Pentispa) rodriguezi, Chapuis, Ann. Soc. Ent. Belg. xx. p. 22 (1877)[1].

Oblonga, nigra, nitida, supra subnitida; capite æneo tincto, facie inferiori piceo-fulvo; antennis modice compressis; thorace transverso, subconico, lateribus leviter angulatis, crebre punctato, utrinque vitta lata sublaterali torulosa, impunctata, fulva instructo; elytris subparallelis, apice rotundatis, lateribus tenuiter, apice forte et irregulariter, sinuatis, ad suturam emarginatis, dorso deplanatis; utrisque octo-seriato-punctatis, interspatiis secundo, quarto sextoque, nec non sutura, costatis; vitta brevi humerali, plaga magna communi ad basin apiceque, nigris, purpureo tinctis.

Long. 2½ lin.

Hab. GUATEMALA [1]; PANAMA, Bugaba 3500 feet, Boquete 3500 feet, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Head tinged with æneous, vertex and front impressed with four longitudinal grooves; clypeus transverse, semilunate, its upper edge free, obsoletely angulate. Antennæ half the length of the body, robust, slightly compressed. Thorax transverse, subconic; sides

converging from the base to the apex, slightly but distinctly angulate; upper surface transversely convex, transversely excavated on the hinder disc, closely and coarsely punctured; either side with a broad submarginal torulose, impunctate, fulvous vitta. Elytra subparallel, obtuse, rounded at the apex; lateral margin finely serrulate, the apical one irregularly notched, and subquadrate-emarginate at the sutural angle; upper surface depressed, each elytron with eight regular rows of punctures, the second, fourth, and sixth interspaces, together with the suture, costate.

It is with some doubt that I assign Dr. Chapuis's name to this species, as that author does not mention the irregular notches on the apical margin of the elytra; should it prove distinct I would propose to name it *clarkella*.

3. **Uroplata fairmairei.**

Uroplata (*Pentispa*) *fairmairii*, Chapuis, Ann. Soc. Ent. Belg. xx. p. 22 (1877)[1].

Anguste oblonga, dorso deplanata, nigra, nitida; supra subnitida; capite interdum nigro-æneo, clypeo piceo; thorace subconico, lateribus subangulato-rotundatis, disco dense et fortiter punctato, utrinque vitta sublaterali torulosa, impunctata, flava instructo; elytris parallelis, acute serrulatis, apice rotundatis, fortius serratis, hic illic et ad suturam emarginatis, utrisque octo-seriato-punctatis; sutura, nec non interspatiis secundo, quarto et sexto, costatis, plaga magna, a basi ad ultra medium extensa, fulva.

Var. A. Elytrorum plaga fulva postice abbreviata.

Long. 2½ lin.

Hab. MEXICO (*Sallé*), Jalapa (*Höge*); GUATEMALA, San Gerónimo, La Tinta, San Juan in Vera Paz (*Champion*); NICARAGUA, Chontales (*Janson*); COSTA RICA [1].

Head nigro-æneous or black. Vertex and front deeply trisulcate; clypeus semilunate, piceous, its upper margin free. Antennæ longer than the head and thorax, robust; club slightly compressed. Thorax transverse, the sides obtusely angulate; upper surface excavated behind the middle, closely and deeply punctured; on either side, just within the lateral margin, is a broad, torulose, impunctate, fulvous vitta. Elytra oblong; lateral margin serrulate, the apical one irregularly notched, emarginate at the sutural angle, strongly serrulate; each elytron with eight regular rows of punctures, the second, fourth, and sixth interspaces, together with the suture, strongly costate.

Rather more parallel than the preceding species.

oo. *Apices of the elytra entire.*

4. **Uroplata vittatipennis.** (Tab. IV. fig. 9.)

Anguste oblonga, nigra, nitida, æneo vix micans; thoracis inferioris lateribus obscure fulvis; thorace transverso, lateribus a basi ad apicem convergentibus, medio angulatis, dorso transversim convexo, pone medium depresso, rude et irregulariter punctato, utrinque vitta lata torulosa fere impunctata instructo; elytris oblongis, parallelis, apice rotundatis, margine laterali distincte, apicali fortius, serrulatis; utrisque octo-seriato-punctatis, interspatiis secundo, quarto sextoque, nec non sutura, costatis; utrisque vitta lata, a basi fere ad apicem extensa, sordide fulva.

Long. 2½ lin.

Hab. NICARAGUA, Chontales (*Janson*, *Belt*).

Vertex deeply trisulcate; interocular space rather strongly produced; clypeus nigro-piceous, prominent, transverse, subpentangular. Antennæ robust, longer than the head and thorax, scarcely thickened towards the apex; joints cylindrical. Thorax transverse; sides obliquely converging from the base to the apex, distinctly angulate; upper surface transversely convex, flattened on the hinder disc, coarsely and strongly punctured; a subcallose, nearly impunctate, vitta on either side, obscure fulvous. Scutellum transverse, its apex truncate. Elytra oblong, parallel on the sides, rounded at the apex; lateral margin distinctly, the apical one more strongly, serrulate; each elytron with eight regular rows of punctures, the second, fourth, and sixth interspaces, together with the suture, costate.

5. **Uroplata sallæi.** (Tab. IV. fig. 8.)

Anguste oblonga, nitida; subtus piceo-fulva, pectore pedibusque piceis; supra picea, antennis nigris; thorace transverso, lateribus a basi ad apicem angustatis, medio obsolete angulatis, profunde et irregulariter punctato, vittis duabus discoidalibus, male definitis, basi confluentibus, apicem versus abbreviatis, fulvis; elytris oblongis, parallelis, apice obtuse rotundatis, margine laterali distincte, apicali fortius serrulatis; utrisque profunde octo-seriato-punctatis, interspatiis secundo, quarto sextoque, nec non sutura, subcostatis; vitta obliqua, nec marginem nec suturam attingente, fasciaque irregulari longe pone medium, flavis. Long. 2½ lin.

Hab. Mexico, Cuernavaca, Puebla (*Sallé*).

Vertex deeply trisulcate; interocular space produced. Antennæ scarcely equal to the head and thorax in length, robust; joints short, cylindrical, the seventh and four following ones forming an ill-defined club; apical joint truncate. Thorax transverse; sides converging from the base to the apex, obsoletely angulate, the exterior angle armed with a very short lateral tooth; upper surface transversely convex, transversely flattened on the hinder disc, coarsely, deeply, and irregularly punctured, the fulvous markings nearly impunctate. Scutellum transverse, truncate, nigro-piceous. Elytra oblong, parallel, obtusely rounded at the apex; lateral margin distinctly, the apical one more strongly, serrulate; each elytron with eight regular rows of large, deeply impressed punctures, the second, fourth, and sixth interspaces subcostate; the suture rather more strongly elevated.

b. *Elytra each with eight, at the extreme base with nine, rows of punctures.*

o. *Elytra emarginate at the sutural angle.*

6. **Uroplata distincta.**

Subelongata, postice vix ampliata, nigra; subtus nitida, supra subopaca; thorace utrinque vitta sublaterali torulosa, impunctata, elytrorumque plaga humerali, a basi fere ad medium extensa, fulvis; thorace transverso, lateribus a basi ad apicem convergentibus, medio subangulatis, disci medio rude et crebre punctato; elytris subparallelis, apice rotundatis, ad suturam late subquadratim emarginatis, lateribus minute, margine apicali fortius et minus regulariter, serrulatis; utrisque octo-, basi extrema nono-seriato-punctatis; interspatiis secundo, quarto sextoque costatis.

Var. A. Thorace fulvo, lateribus angustis plagaque subquadrata discoidali, ad basin adfixa, nigris.
Long. 2–2½ lin.

Hab. Mexico (var. A.), Jalapa (*Höge*, type); Guatemala, Tamahu, Chiacam in Vera Paz (*Champion*).

Vertex and front deeply sulcate; clypeus transverse, produced, its upper edge subangulate. Antennæ nearly half the length of the body, slightly thickened towards the apex; joints subcylindrical. Thorax transverse, subconic; sides converging from base to apex, obsoletely angulate; disc coarsely and closely punctured, a broad submarginal torulose, impunctate vitta on either side, fulvous. Elytra subparallel, very slightly increasing in width towards the apex; the latter rounded, broadly subquadrate-emarginate at the suture, the lateral margin finely, the apical one more strongly and somewhat irregularly, serrulate; each elytron with eight, at the extreme base with nine, regular rows of punctures; the second, fourth, and sixth interspaces costate, the last less distinctly raised than the two others.

Very similar in the emargination of the elytra to *U. explanata*, but the form of the antennæ is entirely different; the elytra are less dilated at the apex, their upper surface with an additional row of punctures at the base.

oo. *Apices of the elytra entire.*

7. Uroplata chevrolati.

Uroplata (*Pentispa*) *chevrolati*, Chapuis, Ann. Soc. Ent. Belg. xx. p. 21 (1877)[1].

Anguste oblonga, dorso deplanata, nigra; subtus nitida, supra subnitida; clypeo piceo; thorace transverso, conico, lateribus bisinuatis, transversim convexo, disco postico leviter depresso, rude et crebre foveolato-punctato, utrinque vitta subtorulosa, fulva ornato; elytris oblongis, fere parallelis, apice obtusis, minute serrulatis; utrisque octo-, basi extrema nono-seriato-punctatis, interspatiis secundo, quarto et sexto, nec non sutura, costatis; plaga humerali, retrorsum plus minusve extensa, fulva instructis.

Long. 2–2½ lin.

Hab. Mexico, Vera Cruz (*Sallé*); Guatemala[1], Dueñas, Capetillo, Cerro Zunil 4000 feet (*Champion*); Costa Rica (*Van Patten*).—Colombia.

Head tinged with æneous; vertex and front impressed with three to five longitudinal grooves; clypeus produced, transverse, trigonate. Antennæ rather longer than the head and thorax, slightly thickened towards the apex; joints cylindrical, the club very slightly compressed. Thorax transverse; sides converging from base to apex, bisinuate; upper surface transversely convex, transversely excavated on the hinder disc, closely and strongly punctured; a subtorulose vitta on either side, rather less closely punctured than the disc, fulvous. Elytra broader than the thorax, parallel on the sides, obtusely rounded at the apex; lateral margin finely, the apical one rather more distinctly, serrulate; each elytron with eight, at the extreme base with nine*, rows of punctures; the suture, together with the second, fourth, and sixth interspaces, moderately costate.

* In this species the short sutural stria is represented only by one or two punctures.

8. Uroplata candezei.

Uroplata (*Pentispa*) *candezei*, Chapuis, Ann. Soc. Ent. Belg. xx. pp. 22 (1877)[1].

Anguste oblonga, dorso subdepressa, nigra; subtus nitida, supra subnitida; capite nigro-æneo, clypeo piceo, thorace elytrisque fulvis; thorace transverso, lateribus a basi ad apicem convergentibus, medio angulatis; rude et crebre punctato, vitta discoidali, ad apicem plerumque abbreviata, lateribusque macula, nigris; elytris parallelis, apice rotundatis, lateribus distincte, apice fortius, serrulatis; utrisque octo-, basi extrema nono-seriato-punctatis, sutura, nec non interspatiis secundo, quarto sextoque, costatis; dimidio postico maculaque infra scutellum, nigris.

Long. $2\frac{1}{8}$–3 lin.

Hab. Mexico, Cordova, Misantla (*Höge*), Vera Cruz, Oaxaca, Juquila (*Sallé*); Guatemala [1], Capetillo (*Champion*).

Neck and vertex rugose-punctate; front trisulcate, the medial groove less strongly impressed than the lateral ones; interocular space rather strongly produced; clypeus produced, transverse, its apex obtuse. Antennæ rather longer than the head and thorax; joints cylindrical, the club slightly compressed. Thorax transverse; sides converging from base to apex, obtusely angulate, sinuate from the base to the middle, thence bisinuate and more quickly converging to the apex; upper surface transversely convex, depressed on the hinder disc, closely and coarsely rugose-punctate. Scutellum transverse, its apex truncate, slightly bisinuate. Elytra broader than the thorax, oblong, parallel, regularly rounded at the apex; sides distinctly and somewhat irregularly, the apical margin more strongly, serrulate; each elytron with eight, at the extreme base with nine, rows of punctures; the suture, together with the second, fourth, and sixth interspaces, strongly costate.

9. Uroplata melanura.

Uroplata melanura, Chapuis, Ann. Soc. Ent. Belg. xx. p. 22 (1877) [1].

Anguste oblonga, subtus nitida, supra subnitida, nigra, sæpe purpureo tincta, capite nigro-virescenti; thorace subconico, lateribus a basi apicem versus convergentibus, medio distincte angulatis; dense et fortiter punctato, utrinque vitta lata sublaterali flava; elytris oblongis, apice rotundatis, tenuiter, ad apicem paullo distinctius, serrulatis; utrisque octo-, basi extrema nono-seriato-punctatis, interspatiis secundo et quarto, nec non sutura, sat valde costatis, interspatio sexto minus distincte elevato; flavis aut fulvo-flavis, dimidia fere postica parte plagaque suturali post scutellum posita, nigris.

Var. A. Elytris fulvis, dimidio postico, macula communi subscutellari vittulisque duabus infra basin, una inter costas primam et secundam, altera inter costam tertiam et marginem positis, nigris.

Long. $2\frac{2}{3}$ lin.

Hab. Mexico [1], Oaxaca, Jalapa, Misantla, Cordova, Juquila, Vera Cruz (*Höge*, *Sallé*), Capulalpam, Guanajuato (*Sallé*).

Vertex trisulcate; interocular space moderately produced; clypeus transverse, produced, semilunate. Antennæ black, robust; lower joints cylindrical, the seventh and the club slightly compressed. Thorax transverse; sides converging from base to apex, distinctly angulate; upper surface entirely covered with coarse punctures. Elytra parallel on the sides, rounded at the apex, finely serrulate (more strongly on the apical

margin); each elytron with eight, at the extreme base with nine, rows of punctures, the second, fourth, and sixth interspaces, together with the suture, costate.

In some specimens from Juquila the apices of the elytra are rather more strongly serrate.

10. **Uroplata beata***. (*Uroplata rubida*, Tab. IV. fig. 10.)

Subelongata, fere parallela, nigra, æneo vix tincta, nitida; thorace elytrisque rufis, illo transverso, conico, lateribus fere rectis, anguste nigris; dorso subcylindrico, disco pone medium paullo deplanato, crebre foveolato-punctato; elytris parallelis, sinuatis, apice obtuse rotundatis; utrisque octo-, basi extrema nono-seriato-punctatis, interspatiis alternis costatis, costis duabus internis magis fortiter elevatis; plaga discoidali inter costas primam et tertiam vix pone medium, posita, lateribus anguste margineque apicali, nigris.

Var. A. Elytrorum plaga discoidali obsoleta.

Long. 3½ lin.

Hab. Mexico, Cordova (*Höge*).

Head smooth; front moderately produced between the eyes, deeply trisulcate. Antennæ robust, equal in length to the head and thorax; first and second joints short, the former slightly thickened, the third rather longer than the second, subovate, the fourth and fifth each equal in length to the second, the sixth very short, subturbinate, the seventh nearly twice its length; club slightly compressed and dilated. Thorax about one fourth broader than long at the base; sides nearly straight, obsoletely bisinuate, obliquely converging from base to apex, the anterior angle armed laterally with a short acute tooth; upper surface subcylindrical on the sides and at the apex, flattened on the hinder disc, closely and deeply foveolate-punctate. Elytra narrowly oblong, parallel, obtusely rounded at the apex, rather coarsely serrulate; each elytron with eight, at the base with nine, regular rows of punctures; second and fourth interspaces rather strongly costate, the sixth less strongly elevated, finely serrulate below its middle.

c. *Elytra each with ten, at the extreme base with eleven, rows of punctures.*

o. *Elytra rounded at the apex, emarginate at the sutural angle; apical margin spinous.*

11. **Uroplata bellicosa.**

Elongata, subparallela, nigra; subtus nitida, supra subopaca; tarsis anticis capitisque maculis fulvis, femoribus anticis quatuor flavis; vertice utrinque fortiter sulcato; antennis rigidis, compressis, ad apicem attenuatis; thorace conico, lateribus rectis, ad apicem sinuatis, angulo antico dente subacuto, obliquo armato, dense punctato, pone medium transversim excavato, utrinque vitta lata submarginali fulva; elytris ab ante medium apicem versus paullo ampliatis, apice rotundatis, ad suturam quadrato-emarginatis, irregulariter spinosis; utrisque decem-, basi undecim-seriato-punctatis, interspatiis secundo, quarto octavoque,

* Since the Plate was drawn I have discovered that the specific name *rubida* under which I first described the above insect had been previously used for another species of the same genus. I have, therefore, been compelled to change it.

nec non sexto ad apicem, minus distincte costatis, plaga basali callum humeralem amplectente fulva instructis; pedibus elongatis, femoribus intermediis dentibus brevibus nonnullis armatis.
Long. 3½ lin.

Hab. Panama, Bugaba 800 to 1500 feet (*Champion*). A single specimen only.

Head rather strongly produced between the eyes; vertex and front deeply impressed on either side with a longitudinal groove; a small patch on the hinder border of the eye, and one on the anterior portion of the front, obscure fulvous. Antennæ rigid, half the length of the body, compressed, attenuated towards the apex, the latter acute; the two lower joints short, moniliform, the third and four following ones carinate. Thorax slightly broader than long, conic; sides nearly straight, sinuate immediately behind the anterior angle, the latter armed with a subacute oblique tooth. Elytra subparallel, rounded at the apex, emarginate at the suture, the apices with several long spinous teeth; each elytron with ten, at the base with eleven, regular rows of punctures, the second, fourth, and eighth interspaces costate; the sixth interspace towards its apex, together with the suture, less strongly elevated.

oo. *Posterior angle of the elytron laterally produced.*

12. **Uroplata aterrima.** (Tab. IV. fig. 23.)

Euprionota aterrima, Guér. Icon. du Règne Anim. iii. Texte, p. 278[1].

Hab. Mexico[1], Jalapa (*Höge*), Parada, Juquila (*Sallé*); Guatemala, Capetillo, Dueñas, Cerro Zunil 4000 feet, Purula (*Champion*); Nicaragua, Chontales (*Janson*); Costa Rica, Cache (*Rogers*).

The diagnosis given by Guérin so accurately defines this species, that a detailed description is unnecessary.

B. *Vertex and front plane, often impressed on the medial line with a shallow longitudinal groove; anterior surface of the front in some species finely carinate.*

a. *Elytra each with eight rows of punctures; posterior angle not laterally produced.*

o. *Elytra more or less distinctly emarginate at the sutural angle.*

13. **Uroplata championi.** (*Uroplata emarginata*, Tab. IV. fig. 11.)

Chalepus championi, antea, p. 50.

Hab. Panama, Volcan de Chiriqui 2500 to 4000 feet, Bugaba (*Champion*).

Misled by the general resemblance of this insect to certain species of *Chalepus*, I, without sufficiently careful examination, originally placed it in that genus. Quite

recently, when working out the species of *Uroplata*, I came across a series of specimens which I placed without hesitation in the present genus, and redescribed before discovering that they were specifically identical with the insect previously described by me as *Chalepus championi*: hence the discrepancy in the naming of the plate.

14. Uroplata consociata.

Elongata, subparallela, subdepressa; subtus nitida, nigra, antepectoris medio, mesosterno, coxis, femoribus basi abdominisque limbo extremo, fulvis; supra subopaca, fulva, scutello antennisque nigris; thorace transverso, lateribus a basi ad ultra medium rectis, fere parallelis, hinc apicem versus oblique convergentibus, dorso subcylindrico, disco pone medium transversim depresso, rugoso-punctato, medio anguste longitudinaliter sulcato; vitta mediali, antice interdum abbreviata, nigra, lateribus anguste nigris aut nigro-piceis; elytris subparallelis, serrulatis, apice rotundatis, ad suturam conjunctim emarginatis, utrisque octo-seriato-punctatis, interspatiis secundo, quarto sextoque subcostatis.

Var. A. Elytris nigris, plaga magna humerali, a basi ad medium extensa, fulva.
Var. B. Elytris fulvis, linea suturali dimidioque postico nigris.
Var. C. Elytris fulvis, apice extremo nigris.
Var. D. Elytris totis fulvis (*mas*).
Mas. Antennarum articulis intermediis compressis, dorso cristatis.
Long. 2½ lin.

Hab. MEXICO, Cordova, Misantla (*Höge*: A and B), Yolos (*Sallé*: C); GUATEMALA, near the city (*Champion*).

Interocular space moderately produced; vertex and front opaque, in some specimens impressed on the medial line with a faint longitudinal groove; upper portion of the clypeus thickened, its apex sulcate. Antennæ rather slender, more than half the length of the body, filiform; the apical joint not thicker than the preceding ones; third joint longer than the preceding two united, the third and fourth obsoletely flattened. Thorax more than one half broader than long; sides straight and nearly parallel from the base to just beyond the middle, thence obliquely converging towards the apex, the latter armed with a small subacute tooth; upper surface transversely convex, transversely depressed on the hinder disc, coarsely rugose-punctate, the medial line with a faint longitudinal groove; a medial vitta, usually abbreviated anteriorly, black, the lateral margin narrowly nigro-piceous or black. Elytra subparallel, subacutely rounded at the apex, conjointly emarginate at the sutural angle, finely serrulate; upper surface flattened along the suture; each elytron with eight regular rows of large transversely oblong punctures, the second, fourth, and sixth interspaces slightly elevated Rather broader and less parallel than *U. championi*.

15. Uroplata fulvescens.

Elongata, parallela; subtus nigra, nitida, femoribus anticis quatuor basi, pectorisque medio, flavis; supra subopaca, læte fulva; capite lævi, antennis, verticis macula colloque utrinque, nigris; thorace transverso, lateribus a basi ad ultra medium rectis, hinc ad apicem convergentibus; dorso rugoso-punctato, medio tenuiter canaliculato, vitta discoidali lateribusque nigris; elytris parallelis, apicem versus vix ampliatis, apice rotundatis, ad suturam emarginatis, serrulatis, utrisque octo-seriato-punctatis, linea suturali, a

basi ad vix pone medium extensa, apiceque extremo, nigris; tibiis anticis intus prope apicem dente brevi armatis.

Var. A. Elytris immaculatis.

Long. 3 lin.

Hab. GUATEMALA, Capetillo (*Champion*: var. A); PANAMA, Volcan de Chiriqui (*Champion*: type).

Head smooth, impunctate. Antennæ filiform; first and second joints short, submoniliform; third joint longer than the preceding two united, obsoletely compressed; club not thicker than the preceding joints, attenuated towards its apex. Thorax nearly half as broad again as long; sides straight and nearly parallel from the base to beyond the middle, thence obliquely converging to the apex, the anterior angle armed with a short subacute tooth; upper surface rugose-punctate, the medial line with a fine longitudinal groove; the extreme lateral margin, together with a discoidal vitta, black. Scutellum black. Elytra subelongate, parallel, very slightly dilated towards the posterior angle, rounded at the apex, distinctly emarginate at the suture; finely serrulate, the serratures rather more distinct on the apical margin; each elytron with eight regular rows of punctures, all the interspaces, from the first to the sixth, slightly prominent, but not distinctly costate.

This species may be separated from its allies by the non-costate elytra.

16. **Uroplata emorsitans.** (Tab. IV. fig. 12.)

Elongata, subdepressa, nigra; subtus nitida, antepectoris medio, femoribus anticis fere totis, posticisque quatuor basi, fulvis; supra subopaca, thorace fulvo aut rufo-fulvo, scutello capiteque nigris; antennis quam corpus dimidio longioribus, compressis, dorso cristatis; thorace subconico, dorso subcylindrico, disco postico transversim excavato, crebre punctato, lateribus angustis vittaque discoidali nigris; elytris subparallelis, apice rotundatis, ad suturam late emarginatis, minute serrulatis, utrisque octo-seriato-punctatis, interspatiis secundo, quarto sextoque costatis, sexto minus elevato; linea brevi communi subscutellari, margineque apicali, nigris.

Var. A. Facie piceo-fulva, elytrorum margine apicali nigro obsoleto.

Long. 3½ lin.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet, Bugaba 800 to 1500 feet (*Champion*).

Interocular space rather strongly produced; vertex impressed on the medial line with a faint longitudinal groove; front finely carinate. Antennæ more than half the length of the body, strongly compressed, attenuated towards the apex; the third to the seventh joints cristate; two lower joints short, cylindrical. Thorax not broader than long in the male, rather more transverse in the female; sides nearly straight and parallel at the base, thence slightly converging and slightly rounded to the apex; upper surface transversely convex, broadly and distinctly excavated on the hinder disc, closely punctured. Elytra subparallel, very slightly increasing in width from the base towards the apex; the latter rounded, broadly emarginate at the sutural angle; outer margin finely serrulate; each elytron with eight regular rows of punctures; the second,

fourth, and sixth interspaces costate, the outer costa less strongly elevated than the others.

Closely allied to the following species; its thorax less coarsely punctured and more opaque.

17. **Uroplata dimidiata.** (Tab. IV. fig. 13.)

Elongata, subparallela, dorso subdepressa; subtus nigra, nitida, antepectoris medio, femoribus anticis fere totis, posticisque quatuor basi, fulvis; supra subopaca, rufo-fulva, scutello capiteque nigris, facie piceo-fulva; antennis compressis, dorso cristatis; thorace subconico, lateribus fere rectis, in ♀ ad apicem magis convergentibus, dorso subcylindrico, pone medium paullo excavato, rude et crebre punctato; nigro, utrinque vitta lata sublaterali fulva; elytris a basi apicem versus paullo ampliatis, apice rotundatis, ad suturam late subquadratim emarginatis, lateribus minute, margine apicali magis distincte, serrulatis; utrisque octo-seriato-punctatis, interspatiis secundo, quarto sextoque costatis, tertio quintoque pone medium minus distincte elevatis; dimidio postico lineaque suturali, postice plus minusve abbreviata, nigris.

Var. A. Elytris nigris, utrisque plaga humerali, fere ad medium extensa, fulva.

Long. $3\frac{1}{4}$–$3\frac{1}{2}$ lin.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet, Bugaba 800 to 1500 feet (*Champion*).

Head strongly produced between the eyes. Antennæ strongly compressed, attenuated at the apex; the third to the seventh joints cristate; front finely sulcate, its anterior surface faintly carinate. Thorax subconic, slightly broader than long in the male, rather more transverse in the female; sides straight and converging from base to apex in the male, more obliquely converging at the apex in the other sex; transversely convex, slightly depressed on the hinder disc, coarsely and irregularly punctured; medial line with a fine longitudinal groove. Elytra slightly dilated from the base towards the apex, the latter subacutely rounded, broadly emarginate at the suture; sides finely, the apical margin rather more strongly, serrulate; apical border in the male distinctly dilated; each elytron with eight regular rows of punctures; the second, fourth and sixth interspaces costate, the third behind the middle, and the fifth at its base and apex, slightly elevated.

18. **Uroplata elegantula.** (Tab. IV. fig. 14.)

Anguste elongata, rufo-testacea, subtus nitida, supra subnitida, antennis piceis; thorace transverso, rude rugoso-punctato; elytris fere parallelis, apice rotundatis, lateribus minute serrulatis, margine apicali irregulariter serrato et ad suturam emarginato; utrisque octo-seriato-punctatis, stria octava medio interrupta, interspatiis alternis costatis; vitta lata suturali, ante apicem obsoleta, piceo-ænea instructis.

Long. $2\frac{1}{2}$ lin.

Hab. PANAMA, Volcan de Chiriqui 2000 to 3000 feet, David (*Champion*).

Thorax about one third broader than long; sides straight and nearly parallel from the base to just beyond the middle, thence rounded and converging towards the apex, the anterior angle armed with a short, subacute, oblique tooth; upper surface convex, transversely excavated on the hinder disc, coarsely rugose-punctate. Elytra parallel,

slightly constricted at the sides, rounded at the apex; lateral margin finely, the apical one more strongly and irregularly, serrulate, slightly notched at the sutural angle; each elytron with eight rows of large, deeply impressed punctures, the eighth row obsolete in the middle part of its course; the second, fourth, and sixth interspaces strongly costate.

19. Uroplata aberrans.

Uroplata aberrans, Chapuis, Ann. Soc. Ent. Belg. xx. p. 25 (1877)[1].

Elongata, subdepressa, nigra; subtus nitida, prosterni medio abdomineque fulvis, femoribus anticis quatuor basi, flavis; supra subopaca, vertice fronteque lævibus, hac tenuiter carinata; antennis ad corporis dimidium æquilongis, articulis intermediis compressis, cristatis; thorace transverso, lateribus a basi apicem versus convergentibus; dorso transversim convexo, pone medium transversim excavato, crebre rugoso-punctato; utrinque vitta sublaterali, punctata, obsolete torulosa; fulvo, lateribus vittaque lata discoidali, ante apicem abbreviata, nigris; elytris anguste elongato-ovalis, apice subacute rotundatis, ad suturam emarginatis; minute serrulatis, utrisque octo-seriato-punctatis, interspatiis secundo et sexto costatis, quarto basi et apice minus distincte elevato; nigris, macula parva basali fulva ornatis.

Mas. Clypeo in laminam transversam ampliato, apice lævi, margine superiori bilobato.

Fem. Clypeo cuneiformi, apice paullo producto, subtuberculato.

Long. 3 lin.

Hab. MEXICO[1], Cordova (*Höge*, *Sallé*).—COLOMBIA.

Vertex and front smooth, the latter finely carinate; interocular space moderately produced. Antennæ about half the length of the body, slender; two lower joints short, nearly equal in length, subcylindrical, the third to the sixth compressed, moderately dilated, cristate, the third equal in length to the preceding two united; club slender, subfiliform; clypeus in the male produced and dilated into a broad, smooth bilobate plate, the outer edges of which extend on either side over the inner border of the eye. Thorax nearly one half broader than long; sides converging from the base towards the middle, very slightly rounded; upper surface transversely convex, transversely excavated on the hinder disc; closely rugose-punctate, a subtorulose vitta on either side, just within the lateral margin, rather less closely punctured than the rest of the surface. Elytra very narrowly ovate, subacutely rounded at the apex, subquadrate-emarginate at the sutural angle; outer margin minutely serrulate, narrowly dilated on the sides, more distinctly so at the apex; each elytron with eight regular rows of large, transversely oblong punctures; the second and sixth interspaces costate, the fourth slightly elevated at the base and apex.

oo. *Apex of each elytron rounded, entire.*

20. Uroplata decepta.

Elongata, fere parallela; subtus nigra, nitida, pectoris medio femoribusque basi flavis; supra subopaca, fulva; antennis, capitis macula verticali, thoracis vitta discoidali lateribusque angustis, scutello elytrorumque linea suturali, a basi ad medium extensa, nigris; thorace transverso, lateribus pone medium fere parallelis, hinc apicem versus convergentibus; dorso rugoso-punctato, medio tenuiter, longitudinaliter sulcato,

disco postico leviter transversim depresso; elytris fere parallelis, minute serrulatis, singulis apice rotundatis; utrisque octo-seriato-punctatis; interspatiis secundo, quarto sextoque subcostatis.

Long. 3 lin.

Hab. NICARAGUA, Chontales (*Janson*); PANAMA, Volcan de Chiriqui 2000 to 3000 feet, Bugaba (*Champion*).

Vertex and front smooth, impressed on the medial line with an oblong fovea. Antennæ half the length of the body; filiform, the third joint longer than the preceding two united, slightly compressed. Thorax nearly one half broader than long; sides nearly straight and parallel from the base to the middle, thence converging and slightly rounded to the apex, the anterior angle armed with a short subacute tooth; upper surface transversely convex, slightly depressed on the hinder disc, coarsely rugose-punctate, the medial line impressed with a fine longitudinal groove. Elytra nearly parallel, obsoletely dilated posteriorly; each elytron regularly rounded and entire at its apex, forming, conjointly with the opposite elytron, a subangulate emargination at the sutural angle; outer border finely serrulate, the serratures more irregular on the apical margin; each elytron with eight regular rows of punctures, the second, fourth, and sixth interspaces subcostate.

ooo. *Apices of the elytra conjointly rounded, entire.*

21. Uroplata clypeata.

Elongata, subparallela, depressa, fulvo-flava; subtus nitida, supra subopaca, pectoris lateribus abdomineque piceo tinctis; capitis vertice antennisque nigris, pedibus nigro-piceis, femoribus subtus fulvis; clypeo tumido, disco superiori trituberculato; antennis robustis, subcylindricis; thorace transverso; lateribus rotundatis, a basi ad apicem convergentibus, disco pone medium transversim excavato, subcrebre foveolato-punctato, utrinque vitta lata sublaterali nigra instructo; elytris a basi apicem versus paullo ampliatis, apice rotundatis; distincte, margine apicali remotius, serrulatis; utrisque octo-seriato-punctatis, interspatiis secundo, quarto sextoque æqualiter sat valde costatis; vitta brevi humerali lineaque communi subscutellari, nigris.

Long. 3½ lin.

Hab. MEXICO, Cordova (*Sallé*).

Vertex impressed with a large deep fovea; upper half of the clypeus strongly thickened, its apex trituberculate. Antennæ robust, rigid, scarcely thickened towards the apex, the latter acute; joints subcylindrical. Thorax more than one half broader than long; sides rounded and bisinuate before the middle, armed at the apex with a short obtuse tooth; upper surface subcylindrical, strongly excavated transversely on the hinder disc, impressed with large, round, deep punctures; on either side within the lateral margin is a broad black longitudinal stripe, which extends from the basal margin nearly to the apical one. Elytra very slightly dilated towards the apex, the latter broadly rounded, entire; outer margin narrowly dilated, rather broader towards the apex, distinctly serrulate; each elytron with eight regular rows of large transversely oblong punctures, the second, fourth, and sixth interspaces strongly and equally costate.

22. **Uroplata limbata.**

Elongata, parallela, dorso deplanata; nitida, rufo-fulva; antennis nigris, thoracis vittis duabus elytrorumque limbo exteriori piceo-æneis; thorace rude punctato; elytris parallelis, apice rotundatis, tenuiter serrulatis; utrisque octo-seriato-punctatis, interspatiis secundo, quarto sextoque modice elevatis.

Long. 2½ lin.

Hab. Mexico, Yucatan (*coll. Baly*).

Interocular space very slightly produced. Antennæ rather longer than the head and thorax, slightly thickened towards the apex; joints cylindrical, the five upper ones forming a very narrow club. Thorax broader than long; sides rounded, nearly straight and parallel behind the middle; upper surface transversely convex, excavated on the hinder disc, coarsely and closely punctured, a submarginal vitta on either side piceo-æneous. Elytra rather broader than the thorax, parallel, rounded at the apex, the outer margin serrulate; each elytron with eight regular rows of punctures, the second, fourth, and sixth interspaces moderately costate; outer limb broadly piceo-æneous, the æneous tint (in the single specimen before me) gradually lost towards the apex of the elytron.

23. **Uroplata belti.**

Anguste cuneiformis, dorso depressa; subtus nigra, nitida, pectoris medio femoribusque basi fulvis; supra subopaca, fulva; capite inter oculos modice producto, vertice antennisque nigris, ore nigro-piceo; thorace transverso; lateribus pone medium fere rectis, ante medium rotundatis, et ad apicem convergentibus; disco fortiter et crebre punctato, lateribus vittaque lata discoidali nigris; scutello nigro; elytris apicem versus ampliatis, apice regulariter rotundatis, minute serrulatis, dorso depressis; utrisque octo-seriato-punctatis; dimidio postico vittaque communi suturali, nigris.

Long. 3½ lin.

Hab. Nicaragua, Chontales (*Belt*). A single specimen.

Front plane, opaque. Antennæ nearly half the length of the body; third joint equal in length to the basal two united, slightly compressed, the fourth, fifth, and seventh equal to each other in length, the sixth rather shorter; club not more dilated than the preceding joints. Thorax about one half broader than long; sides nearly straight and parallel from the base to the middle, thence rounded and converging to the apex, the anterior angle armed with a subacute tooth; transversely convex, strongly and deeply punctured; a narrow lateral stripe, abbreviated at the extreme apex, together with a broader medial vitta, black. Elytra rather broadly dilated posteriorly, broadly rounded at the apex, finely serrulate, the posterior angle obsolete; each elytron with eight regular rows of punctures, the second, fourth, and sixth interspaces costate.

b. *Elytra each with eight regular rows of punctures; posterior angle laterally produced.*

c. *Humeral callus strongly elevate-cristate.*

24. **Uroplata elevata.** (Tab. IV. fig. 22.)

Elongata, dorso deplanata, pallide fulva, nitida; antennarum dimidio basali piceo-nigro; thorace conico, rude punctato, piceo trivittato; elytris parallelis, apice obtusis, serrulatis, angulo postico in laminam trigonatam acutam extrorsum producto; utrisque octo-seriato-punctatis, interstitiis alternis costatis, callo humerali valde elevato-cristato; margine laterali angusto, linea longitudinali, super cristam humeralem posita, et ad vix ultra medium elytri extensa, fascia angusta subapicali, lineisque duabus obliquis, interdum fere obsoletis (harum una ante, altera vix pone medium, positis), rufo-piceis, angulo postico nigro-piceo.
Long. 3 lin.

Hab. Mexico, Playa Vicente (*Sallé*); Panama, Bugaba 800 to 1500 feet, David, Caldera in Chiriqui 1200 feet, Taboga Island (*Champion*).

Head strongly produced between the eyes; vertex and front opaque, the latter impressed with a faint longitudinal fovea. Antennæ rigid, equal in length to the head and thorax; six lower joints short, cylindrical, the five upper ones forming a distinct, slightly compressed club; five lower joints piceous, the rest fulvous. Thorax conic, scarcely broader at the base than long; sides converging from base to apex; subcylindrical, hinder disc transversely excavated, coarsely and closely punctured. Elytra parallel, obtusely rounded at the apex; the hinder angle produced laterally into an acute, triangular, nigro-piceous tooth, the apex of which curves slightly backwards, its upper surface carinate; sides rather strongly serrulate, the serrations more irregular on the apical margin; each elytron with eight regular rows of large deep punctures, the second, fourth, and sixth interspaces costate; humeral callus strongly elevated, cristate.

25. **Uroplata buqueti.**

Elongata, depressa, fulva; subtus nitida, pedibus flavis; supra subnitida, antennis pallide rufo-castaneis; thorace cum longitudine æquilato, conico, lateribus rectis; disco rugoso-punctato, castaneo trivittato; elytris parallelis, apice obtuse truncatis, angulo postico in laminam trigonatam, dorso cristatam, lateraliter producto; margine laterali minute, apicali magis distincte et irregulariter, serrulatis; utrisque octo-seriato-punctatis, interspatiis secundo, quarto sextoque costatis; callo humerali valde elevato, cristato; linea submarginali, a basi ad apicem extensa, fasciaque angusta subapicali, rufo-piceis, angulo postico piceo.
Long. 2 lin.

Hab. Panama, Bugaba (*Champion*).

Vertex and front smooth, impunctate, the former with a faint fuscous patch. Antennæ scarcely longer than the head and thorax, robust, thickened towards the apex; joints short, cylindrical; apex of the club slightly compressed. Thorax not longer than broad, conic; sides straight, converging from base to apex, rugose-punctate, the lateral margin, together with a narrow discoidal vitta, rufo-piceous. Elytra subelongate, parallel,

obtusely truncate at the apex, the posterior angle produced laterally into a short triangular plate; each elytron with eight regular rows of punctures, the second, fourth, and sixth interspaces costate, the apex of the third costa extending over the surface of the dilated posterior angle; a narrow submarginal vitta extending from base to apex and running along the edge of the cristate humeral callus, together with a narrow subapical band, rufo-piceous; the dilated posterior angle dark piceous; in the single specimen before me there is a faint trace of a small subapical black spot.

Similar in form to *U. elevata*, but less than half the size, its antennæ unicolorous.

26. **Uroplata centromaculata.**

Uroplata (*Octhispa*) *centromaculata*, Chapuis, Ann. Soc. Ent. Belg. xx. p. 24 (1877) [1].

Hab. Mexico [1], Tuxtla (*Sallé*); Guatemala, Dueñas (*Champion*).

This species, which is well although briefly described by Dr. Chapuis, is much shorter and broader than *U. elevata* and *U. buqueti*; its antennæ are shorter, being scarcely longer than the head and thorax; the thorax is more transverse; the elytra are oblong-quadrate and the humeral callus is more strongly cristate.

oo. *Humeral callus not elevate-cristate.*

27. **Uroplata hæmatopyga.** (Tab. IV. fig. 18.)

Anguste subcuneiformis, dorso depressa; subtus nitida, supra subopaca, rufa, capitis vertice nigro; antennis rigidis, ad apicem paullo incrassatis; thorace transverso, rude punctato, plus minusve piceo tincto; elytris ante medium parallelis, apicem versus paullo ampliatis, apice obtuse rotundatis, angulo postico lateraliter paullo producto, obtuso; lateribus minute, margine apicali magis distincte, serrulatis; utrisque octo-seriato-punctatis, interspatiis secundo, quarto sextoque, nec non sutura, costatis; nigro-piceis, apice maculisque parvis discoidalibus rufis.

Long. $2\frac{2}{3}$–3 lin.

Hab. Mexico, Cordova (*Höge*); Panama, Bugaba 800 to 1500 feet (*Champion*).

Vertex and front plane, the latter carinate on the medial line. Antennæ slightly longer than the head and thorax, robust, thickened towards the apex; joints cylindrical. Thorax nearly one half broader than long; sides converging from the base to the apex, sinuate near the base and again just before the apex; subcylindrical above, transversely excavated on the hinder disc, coarsely and deeply foveolate-punctate; more or less stained with piceous, in some specimens this colour covering almost the entire surface. Elytra parallel from the base to beyond the middle, slightly dilated posteriorly, obtusely rounded at the apex, the posterior angle distinctly laterally produced, obtusely rounded; lateral margin finely, the apical border more strongly, serrulate; each elytron with eight regular rows of punctures, the suture, together with the second, fourth, and sixth interspaces, costate.

The specimen from Bugaba is rather smaller, more darkly coloured, and the elytra have a distinct metallic violaceous tint; the front is also less distinctly carinate.

c. *Elytra each at the extreme base with nine, before the middle with eight, and on the hinder disc with nine or ten, rows of punctures; posterior angle laterally produced.*

28. **Uroplata fulvopicta.**

Elongata, ad apicem ampliata, depressa, nitida; subtus cum capite nigro-picea; pedibus posticis nigris, anticis quatuor, femoribus posticis basi, thoraceque inferiori, fulvis; capite inter oculos antennisque pallide rufo-fulvis; thorace transverso, lateribus rotundatis, a paullo ante basin ad apicem convergentibus, transversim convexo, pone medium transversim excavato, rude et crebre punctato; rufo-fulvo, vitta lata discoidali nigra; elytris subelongatis, parallelis, ad apicem ampliatis, serrulatis, apice obtuse rotundatis, angulo postico in laminam trigonatam extrorsum producto; utrisque basi extrema novem-, ante medium octo-, et pone medium novem- aut decem-, seriato-punctatis; interspatiis secundo, quarto sextoque, nec non sutura, costatis; piceo-æneis, fulvo variegatis, angulo postico nigro.

Long. $3\frac{2}{3}$ lin.

Hab. PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).

Vertex rather strongly punctured, impressed with a longitudinal fovea; interocular space strongly produced, and, together with the lower face, rufo-fuscous. Antennæ more than one third the length of the body, slightly thickened towards the apex; joints cylindrical, the two lower ones short, oval, the basal one being rather longer than the second, and the third nearly equal in length to the preceding two; five lower joints nigro-piceous, the rest obscure fulvo-rufous. Thorax transverse; sides nearly straight and parallel at the base, thence rounded and converging to the apex, the anterior angle armed with a small obtuse tooth; above transversely convex, transversely excavated just in front of the basal margin, strongly and closely punctured; fulvous, a broad discoidal vitta black. Scutellum black. Elytra subelongate; sides parallel, finely but distinctly serrulate, the hinder angle produced laterally into a subtrigonate coarsely sculptured plate, the hinder edge of which is strongly serrate; apical margin obtuse, very faintly sinuate at the suture; each elytron at the extreme base with nine, before the middle with eight, and on the hinder disc with nine or ten, rows of large deep punctures; second, fourth, and sixth interspaces, together with the suture, costate; nigro-æneous, a small patch at the base of each elytron, two ill-defined fasciæ (broadly abbreviated towards the suture, one placed before, the other behind, the middle), a transverse subapical patch, the apical margin, and the costæ for the greatest portion of their extent, rufo-fulvous.

d. *Elytra each with ten, at the extreme base with eleven, rows of punctures.*

o. *Posterior angle of the elytron not produced; apical margin more or less strongly spinose.*

29. **Uroplata pascoei.**

Elongata, parallela; subtus nigra, nitida, pectoris medio femoribusque flavis, his nigro maculatis; supra fulva, subnitida, capitis plaga magna verticali antennisque filiformibus nigris; thorace subconico, lateribus

leviter angulatis, subcylindrico, disco postico late transversim depresso, crebre foveolato-punctato, vitta discoidali lata lateribusque nigris; scutello nigro, nitido; elytris parallelis, ad apicem obsolete ampliatis, minute serrulatis, apice rotundato; spinis compressis nonnullis ornatis; utrisque decem-, basi undecim-seriato-punctatis, suturæ basi nigro lineata.

Mas. Femoribus anticis subtus spina brevi, tibiis anticis intus ante apicem dente brevi, armatis.

Fem. Femoribus anticis subtus dente brevi, tibiis ejusdem paris inermibus.

Long. 3½ lin.

Hab. PANAMA, Volcan de Chiriqui 3000 to 4000 feet, Bugaba (*Champion*).

Vertex smooth, impunctate; front moderately produced between the eyes, its upper portion coarsely but not deeply punctured, the medial line with a fine longitudinal groove. Antennæ rather more than half the length of the body, filiform; two lower joints short, equal, subovate; the third to the sixth joints slightly compressed, the third equal in length to the two basal ones; club not thickened, cylindrical, attenuated towards the apex. Thorax slightly broader than long at the base; sides obtusely angulate, converging from base to apex, the anterior angle armed with a short, oblique, obtuse tooth; upper surface subcylindrical at the sides and apex, broadly depressed and slightly excavated on the hinder disc, closely foveolate-punctate. Scutellum subquadrate, dilated at the apex, its apical margin notched. Elytra parallel, rounded at the apex, very slightly dilated towards the posterior angle; sides finely serrulate; apical margin armed with a few strong irregular flattened teeth, sometimes confluent at the base; each elytron at the extreme base with eleven, the rest of the surface with ten, rows of large punctures; interspaces not costate. Legs long; intermediate pair of tibiæ curved in both sexes.

30. **Uroplata armata.** (Tab. IV. fig. 15.)

Elongata, subparallela, nigra; subtus nitida, pectoris medio femoribusque anticis basi, fulvis; supra subopaca, thorace elytrisque fulvis; thorace subconico, lateribus obsolete angulatis; crebre rugoso-punctato, vitta discoidali lateribusque angustis nigris; elytris subparallelis, apicem versus paullo ampliatis, apice rotundatis, ad suturam subquadratim emarginatis, ante medium obsolete, pone medium magis distincte, serrulatis; margine apicali dentibus brevibus nonnullis armato, angulo postico spina valida obliqua instructo; utrisque decem-, basi extrema undecim-seriato-punctatis, interspatiis alternis costatis, secundo quartoque magis elevatis; linea suturali nigra; pedibus elongatis, femoribus anticis subtus ante medium spina brevi armatis.

Long. 2½–3 lin.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Vertex and front subopaque; interocular space moderately produced. Antennæ half the length of the body, compressed, the second joint shorter than the basal one; the third and fourth each equal in length to the first; club not incrassate. Thorax broader than long; sides obliquely converging from base to apex, subangulate; upper surface convex, transversely excavated on the hinder disc, closely and coarsely punctured. Elytra subelongate, parallel before, slightly dilated behind, the middle; lateral margin in front obsoletely, behind the middle more distinctly, serrulate; the hinder angle armed with a strong acute oblique spine; apical margin rounded, sub-

quadrate-emarginate at the sutural angle, its outer half obsoletely, the inner half irregularly, serrulate; each elytron with ten, at the extreme base with eleven, rows of punctures, the alternate interspaces costate, the second and fourth rather more strongly elevated.

31. **Uroplata distinguenda.**

Elongata, postice paullo ampliata, nigra; subtus nitida, pectoris medio fulvo; supra subopaca; thorace velutino, vage punctato, fulvo, vitta discoidali nigra; elytris ad apicem paullo dilatatis, apice rotundatis, margine laterali distincte serrulato, angulo postico spina brevi armato, margine apicali breviter spinoso; utrisque decem-, basi extrema undecim-seriato-punctatis, interspatiis secundo, quarto octavoque costatis, sexto ad apicem leviter elevato; utrisque plaga lata, a basi ad ultra medium extensa, maculaque submarginali, infra basin nigra notata, fulvis ornatis.
Long. 3 lin.

Hab. Panama, Volcan de Chiriqui 2500 to 4000 feet, Bugaba (*Champion*).

Vertex and front impressed with a faint longitudinal groove, opaque, impunctate; interocular space slightly produced. Antennæ about one third the length of the body; joints cylindrical, the five upper ones forming a slender elongate club. Thorax transverse; sides subangulate, converging from base to apex; disc opaque, vaguely punctured, a broad discoidal vitta, black. Elytra broader than the thorax; sides parallel from the base to the middle, thence slightly dilated towards the posterior angle, the latter armed with an oblique spine; apical margin rounded, armed with short spines; each elytron with ten, at the extreme base with eleven, rows of punctures; the second, fourth, and eighth interspaces costate, the apical half of the sixth also slightly elevated. Legs slender, elongate.

oo. *Posterior angle of the elytron not produced; apical margin finely serrate or serrulate.*

32. **Uroplata excisa.** (Tab. IV. fig. 16.)

Elongata, fere parallela; subtus nigra, nitida, femoribus basi abdominisque lateribus piceo-fulvis; supra subopaca; capite piceo-fulvo, vertice antennisque subfiliformibus nigris; thorace transverso, subconico, lateribus fere rectis; disco transversim convexo, pone medium leviter transversim depresso, rugoso-punctato; utrisque vitta subtorulosa, minus punctata, fulva instructo, vitta lata discoidali nigra; scutello nigro; elytris parallelis, apice rotundatis, margine apicali paullo ampliato, ad suturam late subquadrato-emarginato; minute, ad apicem distinctius, serrulatis; utrisque decem-, basi extrema undecim-seriato-punctatis, sutura nec non interspatiis secundo et quarto modice costatis, interspatio octavo minus distincte elevato; nigris, plaga humerali, a basi ad ultra medium extensa, fulva.
Var. A. Thoracis vitta discoidali antice abbreviata.
Long. 2 lin.

Hab. Mexico, Cordova (*Höge*); Guatemala, Cerro Zunil 4000 feet, Panajachel 5000 feet (*Champion*); Panama, Volcan de Chiriqui (*Champion*).

Vertex smooth, impressed anteriorly with a short longitudinal groove; interocular space slightly produced, obtuse. Antennæ less than half the length of the body, slightly dilated towards the apex; joints cylindrical, the club very slightly compressed, its apex

acute, the two lower joints ovate, short, equal, very slightly thickened, the third equal in length to the preceding two united. Thorax broader than long; sides nearly straight, converging from base to apex; upper surface transversely convex, the hinder disc faintly excavated on either side the medial line, coarsely and deeply punctured; a broad subtorulose vitta on either side near the lateral margin less closely punctured. Elytra parallel, very slightly dilated at the obsolete hinder angle; apex rounded; apical margin dilated, broadly emarginate at the suture; sides finely, the apex rather more strongly, serrulate; each elytron with ten, at the extreme base with eleven, rows of deep punctures; the second and fourth interspaces, together with the suture, moderately costate, the eighth interspace obsoletely elevated.

33. **Uroplata westwoodi.** (Tab. IV. fig. 17.)

Elongata, parallela, nigra; subtus nitida, thorace, abdominis limbo angusto femoribusque subtus, flavis; supra subopaca; capite sordide fulvo, vertice antennisque nigris; thorace transverso, lateribus angulatis; crebre punctato, sordide fulvo, lateribus vittaque lata discoidali, hoc sæpe ante apicem abbreviata, nigris; scutello nigro; elytris parallelis, lateribus obsolete serrulatis; apice rotundatis, fortius sed minus regulariter serratis, utrisque decem-, basi extrema undecim-seriato-punctatis, interspatio secundo valde costato, interspatiis quarto apice, sexto basi, nec non octavo toto, minus distincte elevatis; callo humerali lateraliter paullo producto, acuto; nigris, vitta laterali, a basi ad angulum posticum extensa, basi nigro maculata, maculaque apicali sordide fulvis.

Long. 3 lin.

Hab. Mexico, Playa Vicente, Cordova, Juquila (*Sallé*); Nicaragua (*Sallé*); Panama, David in Chiriqui (*Champion*).—Colombia (*coll. Baly*).

Vertex smooth, opaque; interocular space produced, its apex angulate. Antennæ rather more than one third the length of the body, filiform, very slightly thickened towards the apex; joints cylindrical. Thorax transverse; sides straight and parallel to the middle, thence obliquely converging to the apex, the apical angle not produced; upper surface transversely convex, broadly depressed on the hinder disc, opaque, closely punctured; obscure fulvous, the lateral margin, a broad discoidal vitta (the latter sometimes abbreviated anteriorly) together with the apical margin, black. Scutellum black. Elytra parallel, rounded at the apex; the lateral margin obsoletely serrulate, the apical one rather coarsely serrate, the apical teeth sometimes placed at irregular intervals along the margin; each elytron with ten, at the extreme base with eleven, rows of punctures; the second interspace strongly costate, the fourth interspace at its apex, the sixth at the base, and the entire eighth, less strongly raised.

This species is very closely allied to *U. infuscata*, Chapuis, the chief difference being in the rather broader and less strongly punctured thorax in the latter insect. *U. westwoodi* varies greatly in the extent of the fulvous colouring; in some specimens from Colombia the marginal vitta on the elytron is submarginal for nearly the whole of its course, and is continued onwards to join the apical spot; in others the fulvous coloration covers to a greater or lesser extent the outer disc.

ooo. *Posterior angle of the elytron produced laterally into a more or less acute triangular plate.*

34. **Uroplata fulvopustulata.** (Tab. IV. fig. 19.)

Late cuneiformis, depressa, piceo-fulva, nitida; thorace, scutello pedibusque flavis; capite inter oculos paullo producto, lævi; thorace transverso, transversim convexo, rude rugoso-punctato; elytris a paullo ante medium apicem versus ampliatis, apice obtusis, angulo postico lateraliter in laminam trigonatam producto; lateribus laxe et minute, margine apicali distinctius, serrulatis; dorso deplanatis, utrisque decem-, basi extrema undecim-seriato-punctatis, sutura interspatiisque alternis costatis; callo humerali lateraliter paullo producto; fusco-æneis, maculis parvis fulvis ornatis.
Long. 2 lin.

Hab. GUATEMALA, Tamahu (*Champion*); PANAMA, Bugaba, David (*Champion*).

Head very slightly produced between the eyes; front and vertex smooth, impunctate. Antennæ more than one third the length of the body, slender at the base, thickened towards the apex, their joints cylindrical. Thorax twice as broad at the base as long; sides straight and slightly converging from the base to the middle, thence more quickly converging and slightly sinuate to the apex, the anterior angle armed with a subacute tooth; upper surface transversely convex, transversely excavated on the hinder disc, coarsely and irregularly punctured. Elytra much broader than the thorax; sides gradually dilated from just before the middle to the posterior angle, the latter produced into a triangular concave plate; apical margin obtuse, distinctly serrate; lateral margin finely and subremotely serrulate; each elytron with ten, at the extreme base with eleven, rows of punctures; the suture, together with each alternate interspace, costate; the humeral callus laterally prominent; fusco-æneous, marked with numerous small fulvous patches, arranged as follows:—one basal; two placed on the first costa, one about its middle, the other towards its apex; one on the outer margin, halfway between the middle and the apex; and, lastly, one on the apical margin, transverse.

35. **Uroplata lineaticollis.**

Late cuneiformis, depressa, fulva, nitida, pectoris lateribus antennisque nigro-piceis; thorace subconico, lateribus a basi ad apicem convergentibus, leviter rotundatis, disco transversim convexo, pone medium leviter transversim excavato, profunde crebre punctato, punctis disci medio magis remotis; lateribus nigro-piceis, vittis brevibus duabus discoidalibus, male definitis, pallide piceis; elytris subquadrato-oblongis, ad apicem ampliatis, serrulatis, apice obtuse rotundato, angulo postico in laminam obtusam lateraliter producto; utrisque decem-, basi undecim-seriato-punctatis, interspatiis secundo, quarto et octavo totis, nec non sexto basi, costatis; piceis, rufo-piceo variegatis, apice, macula laterali pone medium, nonnullisque parvis discoidalibus, fulvis.
Long. 2 lin.

Hab. GUATEMALA, Tamahu (*Champion*).

So closely allied in form and coloration to *U. fulvopustulata* that it will be only necessary to point out the distinctive differences: its thorax is narrower, subconic, and not unicolorous; the antennæ are nigro-piceous instead of fulvous, and, lastly, the produced hinder angles of the elytra are shorter and much more obtuse; in all other

respects it agrees with *U. fulvopustulata*, amongst specimens of which I had until now placed it.

36. **Uroplata armigera.** (*Uroplata robinsoni*, Tab. IV. fig. 20.)

Subcuneiformis, depressa, fulva; subtus nitida, pectore utrinque macula nigra, tarsis pallide piceis; supra subnitida; capite lævi, fronte tuberculo parvo nitido instructa, macula verticali antennarumque dimidio basali nigro-piceis; thorace quam longo duplo latiori; lateribus a paullo ante basin ad apicem oblique convergentibus, breviter rotundatis, dorso pone medium transversim excavato, rugoso-punctato, medio anguste longitudinaliter sulcato; vitta discoidali lateribusque piceo-æneis; elytris parallelis, ad apicem paullo ampliatis, minute serrulatis, apice obtuse truncatis, angulo postico in spinam validam trigonatam acutam lateraliter producto; callo humerali acuto, lateraliter paullo producto; utrisque decem-, basi undecim-seriato-punctatis, interspatiis secundo, quarto octavoque costatis; limbo laterali, ante apicem obsoleto, angulo postico, fascia transversa subapicali angusta, macula parva pone medium super costam secundam, lineis brevibus duabus inter costam primam et suturam, una ad basin, altera ante medium positis, vittaque subbasali brevi, inter costas primam et secundam, æneis; femoribus anticis subtus dentibus duobus, posticis quatuor singulis dente uno armatis.

Long. 3 lin.

Hab. Nicaragua, Chontales (*Belt*).

Interocular space moderately produced; vertex and front smooth, impunctate, the latter with a small nitidous tubercle. Antennæ rather longer than the head and thorax, subclavate; joints cylindrical, the club obsoletely compressed; nigro-piceous, the basal joint and club piceo-fulvous. Thorax twice as broad at the base as long; sides quickly converging from immediately above the base towards the apex, very slightly rounded; upper surface transversely excavated on the hinder disc, rugose-punctate, the medial line with a narrow longitudinal groove. Elytra broader than the thorax; sides parallel, slightly dilated posteriorly, the apex obtusely truncate; outer margin minutely serrulate, the serratures not stronger on the apical margin than on the sides; posterior angle produced laterally into a strong acute triangular plate, the surface of which is obliquely thickened and convex; each elytron with ten, at the extreme base with eleven, regular rows of punctures, the second, fourth, and eighth interspaces costate, the eighth rather less elevated than the others. Anterior thighs beneath armed with two small acute teeth, the four posterior ones unidentate.

37. **Uroplata variegata.** (Tab. IV. fig. 21.)

Subcuneiformis, subdepressa; subtus nigro- aut piceo-ænea, nitida, pectoris medio, abdominis basi pedibusque fulvis; supra minus nitida, capite rufo-piceo, antennis nigris; thorace transverso; lateribus a basi ad apicem convergentibus, paullo rotundatis; crebre rugoso-punctato; sordide fulvo, vittis tribus nigris instructo; scutello nigro; elytris anguste oblongis, lateribus serrulatis, parallelis, apicem versus abrupte ampliatis, angulo postico lateraliter in laminam trigonatam producto; apice obtuse rotundato, fortius serrato; utrisque decem-, basi undecim-seriato-punctatis, interspatiis secundo, quarto octavoque, nec non sexto basi et apice, costatis; æneis, maculis confluentibus fulvis variegatis, angulo postico nigro.

Long. 3 lin.

Hab. Panama, Bugaba, David in Chiriqui (*Champion*).

Head subopaque, the vertex longitudinally excavated, stained with nigro-piceous; inter-

ocular space moderately produced, angulate. Antennæ black, more than a third the length of the body, thickened towards the apex; joints cylindrical. Thorax transverse; sides converging from base to apex, obtusely rounded, the anterior angle produced into an obtuse tooth; upper surface transversely convex, the hinder disc transversely depressed, coarsely and closely punctured; disc with three black vittæ, extending from the base to the apex. Elytra broader than the thorax; sides parallel, rather quickly dilated at the hinder angle, serrulate; posterior angle dilated laterally into an acute triangular plate; apex obtusely rounded; apical margin, together with the hinder margin of the dilated posterior angle, more strongly serrulate than the sides; each elytron with ten, at the extreme base with eleven, rows of large deeply impressed punctures; the second, fourth, and eighth interspaces, together with the base and apex of the sixth, costate; æneous, variegated with fulvous markings, which form an irregular semicircular band extending from the middle of the basal margin to the suture just before its middle, an irregular fascia just below the middle of the elytron, and a transverse patch or fascia immediately above the apex: these markings vary greatly in extent, and in some specimens the apical margin is also fulvous.

38. **Uroplata nebulosa.**

Subcuneiformis, depressa; subtus piceo-nigra, nitida; thorace, abdominis limbo femoribusque anticis fere totis, posticisque quatuor basi et apice, sordide fulvis; supra opaca, sordide fulva; capite impunctato, vertice nigro, antennis nigro-piceis; thorace transverso, lateribus basi rectis, parallelis, medio breviter rotundato-ampliatis, angulo antico dente subacuto armato; dorso velutino, inæquali, medio punctis nonnullis remote impresso, lateribus fere impunctatis, disco postico utrinque ante basin transversim excavato; basi margineque laterali nigro-piceis; elytris a basi ad medium parallelis, hinc apicem versus ampliatis, apice obtusis, margine laterali minute serrulato, apicali paullo dilatato, irregulariter serrato; angulo postico lateraliter producto; dorso deplanatis, utrisque decem-, basi undecim-punctatis, interspatiis secundo, quarto et octavo, nec non sexto ad basin, costatis, costa secunda ante medium et ante apicem interrupta; velutinis, piceo nebulosis; tibiis anticis compressis, dorso ampliatis, subcristatis.

Long. 3 lin.

Hab. Mexico (*Sallé*). A single specimen.

Head moderately produced between the eyes; front impressed on the medial line with a shallow longitudinal groove. Antennæ slender at the base, thickened towards the apex, rather more than a third the length of the body; joints cylindrical, the basal one short, the second about one half longer than the first, rather shorter than the third, and about equal in length to the fourth. Thorax nearly twice as broad as long; sides nearly straight and parallel at the base, rounded and dilated in the middle, converging at the apex, the anterior angle armed with a stout subacute tooth; transversely convex; surface unequal, transversely excavated on either side just before the base; velvety, nearly impunctate on the sides, impressed on the middle disc with a few large piceous punctures; lateral margin and base stained with nigro-piceous. Scutellum piceous. Elytra much broader than the thorax; sides gradually dilated from the middle to the posterior angle, the latter produced laterally into a triangular plate; apical margin

slightly dilated, strongly and irregularly serrate, the lateral border finely serrulate; each elytron with ten, at the extreme base with eleven, rows of deep punctures, the second, fourth, the basal portion of the sixth and the entire eighth interspaces, costate; the second costa more strongly elevated than the rest, interrupted below the base and again before the middle; apical portion of the suture distinctly costate.

39. **Uroplata dolorosa.**

Subcuneiformis, subdepressa, nigra; subtus nitida, thoracis lateribus femoribusque basi fulvis; supra velutina, capite (antennis exceptis) thoraceque sordide fulvis; hoc rude punctato, lateribus angustis plagisque magnis discoidalibus, basi adfixis et fere ad apicem extensis, nigris; elytris ad apicem ampliatis, apice obtuse rotundatis, angulo postico lateraliter paullo extenso, obtuso; margine laterali obsolete, apicali sat fortiter, serrulatis; utrisque decem-, basi extrema undecim-seriato-punctatis, interspatiis secundo et quarto valde costatis, leviter sinuatis, nitidis, callo humerali lateraliter producto, obtuso; margine basali maculaque discoidali, vix pone medium posita, obscure fulvis; tibiis compressis, anticis dorso cristatis.

Long. 2½ lin.

Hab. PANAMA, Bugaba 800–1500 feet, Volcan de Chiriqui 3000 to 4000 feet (*Champion*).

Vertex and front opaque, the former impressed with an ill-defined fovea; interocular space moderately produced, obtuse. Antennæ less than one third the length of the body, thickened towards the apex; joints cylindrical, the apex of the club acute. Thorax transverse; sides straight and parallel from the base to the middle, thence rounded and converging towards the apex, sinuate anteriorly, the apical angle armed with a strong subacute tooth; disc coarsely punctured, a narrow medial line, and the space immediately behind the apical margin, free from punctures. Elytra subparallel before the middle, thence gradually dilated towards the posterior angle, the latter laterally produced; apex obtusely rounded; lateral margin very finely, the apical one coarsely and irregularly, serrulate; each elytron with ten, at the extreme base with eleven, rows of punctures; the second and fourth interspaces strongly costate, subsinuate, the eighth interspace very slightly thickened; humeral callus laterally produced, its apex obtuse.

40. **Uroplata melancholica.** (Tab. IV. fig. 24.)

Subcuneiformis, dorso subdepressa, nigra, nitida; supra subnitida, prosterno, femoribus basi, capite thoraceque fulvis aut piceo-fulvis, genubus piceis; capite inter oculos paullo producto, vertice antennisque subclavatis nigris; thorace transverso, lateribus a basi ad medium fere parallelis, hinc ad apicem rotundato-angustatis, angulo antico dente valido obtuso, antrorsum producto, armato; disco profunde, minus crebre foveolato-punctato, margine laterali, nec non plagis discoidalibus duabus, a basi ad apicem extensis, interdum ante apicem abbreviatis, nigris; elytris oblongis, lateribus ante medium fere parallelis, hinc ad apicem perparum ampliatis, minute serrulatis, angulo postico abrupte lateraliter dilatato; apice obtuse truncato, fortiter serrato; utrisque decem-, basi extrema undecim-seriato-punctatis, interspatiis secundo et quarto valde costatis, lateraliter biflexuosis, costa interna basi obsoleta, interspatiis sexto ad basin, nec non octavo toto, leviter elevatis; opacis, margine basali maculaque parva vix pone medium posita, fulvis.

Var. A. Elytrorum maculis obsoletis.

Long. 2½–2¾ lin.

Hab. Panama, Volcan de Chiriqui 3000 to 4000 feet, Bugaba 800 to 1500 feet (*Champion*).

Head very finely granulose, the front only slightly produced between the eyes. Antennæ gradually thickened towards the apex, rather longer than the head and thorax, robust in the male, rather more slender in the female; the two lower joints equal, submoniliform, the third obconic, rather shorter than the preceding two united. Thorax transverse; sides straight and nearly parallel from the base to the middle, sometimes slightly sinuate, thence rotundate-angustate to the apex, the anterior angle armed with a strong obtuse tooth; disc transversely convex on the sides and apex, broadly depressed and excavated on its hinder surface, coarsely and strongly foveolate-punctate, the punctures scattered on the anterior disc, more crowded behind the middle. Elytra oblong; sides nearly parallel before the middle, thence gradually dilated to the posterior angle, finely serrulate, the posterior angle abruptly produced into a flattened subtriangular obtuse plate; apices obtusely truncate, the margins, together with the hinder edge of the lateral plate, coarsely serrate; upper surface opaque, finely granulose; each elytron at its extreme base with eleven, at the extreme apex with six or seven, and on the rest of its surface with ten, rows of punctures; second and fourth interspaces strongly costate, laterally sinuate, the inner costa obsolete at its base; the basal portion of the sixth, and the entire eighth interspace, moderately elevated. Legs thickened; tibiæ compressed, the outer edge of the anterior pair subcristate, the intermediate pair curved.

41. **Uroplata sculptilis.**

Uroplata sculptilis, Chapuis, Ann. Soc. Ent. Belg. 1877, p. 27[1].

Hab. Mexico[1].

This species is nearly allied to, and probably identical with, *U. excisa*, described in the present work (*antea*, p. 111), but without comparison of the types it is impossible to decide the point.

42. **Uroplata crassicornis.**

Uroplata crassicornis, Chapuis, loc. cit. p. 28[1].

Hab. ? Mexico[1].—Brazil.

Dr. Chapuis has, I think, given the wrong locality for this species; all the specimens that I have seen (from various sources) were labelled Brazil.

The three following species are unknown to me:—

43. **Uroplata fastidiosa.**

Uroplata fastidiosa, Chapuis, Ann. Soc. Ent. Belg. xx. p. 21 (1877)[1].

Oblonga, subnitida, nigra; pronoto subtransverso, conico, lateribus subrectis, dense et profunde punctato, vitta

utrinque flava, laterali, torulosa, impunctata, ornato; elytris oblongis, parallelis, acutius densiusque et versus apicem longius serrulatis, tricostatis, nigris, cum plaga flava humerali, fere ad medium extensa; corpore subtus cum pedibus nigro. (*Chapuis.*)

Long. 5½ millim.

Hab. MEXICO [1].

44. **Uroplata subvirens.**

Uroplata subvirens, Chapuis, Ann. Soc. Ent. Belg. xx. p. 22 (1877) [1].

Oblonga, subnitida, nigra; pronoto transverso, conico, lateribus subrectis, sat dense et fortiter punctato, nigro-virescenti, utrinque vitta sublaterali flava, torulosa, impunctata, ornato; elytris parallelis, tricostatis, breviter sed versus apicem longius serrulatis, nigro-virescentibus cum plaga flava a basi ad ultra medium et a sutura ad marginem extensa; corpore subtus cum pedibus nigro. (*Chapuis.*)

Long. 5 millim.

Hab. GUATEMALA [1].

I cannot refer any of the specimens before me with certainty to either *U. subvirens* or *U. fastidiosa*. The author does not mention in any of his diagnoses the short ninth row of punctures on each elytron; it is therefore uncertain in which of my subsections of Section A these species ought to be placed.

45. **Uroplata bipuncticollis.**

Uroplata bipuncticollis, Chapuis, loc. cit. p. 28 [1].

Hab. MEXICO [1].

This insect is quite unknown to me, but, judging from the description, it is closely allied to *U. crassicornis*.

Section 3. *Seven to nine upper joints of the antennæ closely united into a single piece.*

ACANTHODES.

Acanthodes, Baly, Ann. & Mag. Nat. Hist. 3rd ser. xiv. p. 262 (October 1864).

The peculiarity in the structure of the antennæ at once separates the present genus from *Uroplata*, to which in general form and in all other characters it is closely allied. With the exception of the one described below, the rest of the species inhabit South America.

1. **Acanthodes flavipes.** (Tab. IV. fig. 25.)

Anguste subcuneiformis, dorso depressa, nigra; pedibus flavis, supra æneo vix micans; antennis rigidis; thorace conico, subcylindrico, crebre et fortiter punctato; elytris oblongis, lateribus parallelis, angulo postico in laminam concavam apice obtusam, oblique lateraliter producto; apice obtuse rotundato; utrisque octo-, basi nono-seriato-punctatis, interspatiis secundo, quarto sextoque, nec non sutura, costatis.

Long. 2 lin.

Hab. PANAMA, David in Chiriqui (*Champion*).

Head rather strongly produced between the eyes; vertex finely rugose, irregularly sulcate. Antennæ equal in length to the head and thorax, robust; first and second joints short, moniliform, the basal one thickened; the third and following joints closely united, and forming a slightly compressed club; the articulations between the third, fourth, and fifth joints (when viewed under a strong lens) distinct, the rest not defined; third joint nearly as long as the preceding two united. Thorax conic, subcylindrical, obliquely converging from base to apex; very slightly depressed on the hinder disc, closely and deeply punctured. Elytra narrowly oblong; sides parallel, minutely serrulate; hinder angle produced laterally and somewhat obliquely into a subtrigonate concave plate; apical margin obtuse, minutely serrulate; upper surface with eight, at the extreme base with nine, rows of deep punctures; the second, fourth, and sixth interspaces, together with the suture, costate.

In some specimens the puncturing between the second and third costa behind their middle is less regular, and occasionally there is a trace of an additional row of punctures.

SUPPLEMENT.

CEPHALOLEIA (p. 8).

Cephaloleia stenosoma (p. 19).

The reference to Tab. II. fig. 4 must be erased; the figure represents *C. leptomorpha*.

Cephaloleia leptomorpha (p. 25). (Tab. II. fig. 4.)

The locality "Volcan de Chiriqui 8000 feet (*Champion*)," and the concluding remarks, "Taken abundantly by sweeping undergrowth (Bambusaceæ) in the virgin forest at a high elevation," must be transferred from *Stenispa attenuata* (p. 4) to the present insect.

CEPHALODONTA (p. 32).

Cephalodonta longula.

Cephalodonta elongata, ante, p. 38.

I find that the name *elongata* has been already used by Guérin for another species of the genus.

CHALEPUS (p. 48).

Chalepus morio (p. 50).

In all the specimens that I have seen of this species there is a single puncture placed between the inner row of punctures and the scutellum.

Chalepus championi (p. 50).

This species belongs to *Uroplata*; it is inserted in its proper place in that genus on p. 100.

Chalepus suturalis (p. 51).

To the locality given, add:—Mexico, Cordova (*Sallé*).

5 (A). Chalepus bivittaticollis.

Sat elongatus, niger, subtus nitidus, supra subnitidus; thorace subconico, disco crebre punctato, utrinque vitta submarginali callosa impunctata fulva instructo; elytris parallelis, ad suturam late subquadrato-emarginatis, utrisque octo-, basi extrema nono-seriato-punctatis, interspatio secundo nec non sutura costatis; interspatiis tertio ad sextum subelevatis.

Long. 3 lin.

Hab. MEXICO, Parada, Oaxaca (*Sallé*).

Front trisulcate; antennæ filiform, the four upper joints closely articulated, the sutural lines only visible under a lens. Thorax transverse; sides converging from base to apex, more quickly so before their middle; upper surface transversely convex, transversely excavated posteriorly, coarsely and strongly punctured; on either side, within the lateral margin, is a broad, callose, impunctate, fulvous vitta. Elytra parallel; sides serrulate, rather more coarsely so towards the apex; apical margin distinctly dilated, broadly subquadrate-emarginate at the sutural angle; each elytron with eight, at the extreme base with nine, rows of deeply impressed punctures; the second interspace, together with the suture, costate; the third to the sixth interspaces slightly but distinctly elevated.

Very similar in form to *C. morio*, but the short additional basal row of punctures, together with the sublateral fulvous thoracic vittæ, will at once distinguish it from that species.

Chalepus bellulus (p. 68).

To the localities given, add:—MEXICO, Ventanas (*Forrer*), Tuxtla, Playa Vicente, Panistlahuaca (*Sallé*).

Chalepus chromaticus (p. 70).

To the localities given, add:—MEXICO, Cordova (*Höge*), Toxpam (*Sallé*).

Chalepus angulosus * (p. 73).

Var. A. Elytris nigris, vitta submarginali a basi ad medium extensa, fulva ornatis.

Hab. PANAMA, David (*Champion*).

Chalepus similatus (p. 73).

To the localities given, add:—MEXICO, Oaxaca, Cordova (*Höge*).

Chalepus waterhousii (p. 81).

To the localities given, add:—MEXICO, Teapa (*Sallé*); GUATEMALA, Cubilguitz, Cahabon, Panima, Tamahu (*Champion*).

* The last line of the diagnosis of this species should read:—linea submarginali brevi fulva, nigro notata, ornatis; *not* linea submarginali brevi nigra, fulva notata ornatis.

Chalepus deyrollei (p. 83).

To the localities given, add:—Mexico, Jalapa (*Höge*); Guatemala (*coll. Baly*), San Gerónimo, Zapote (*Champion*).

60 (a). **Chalepus mediolineatus.**

Subelongatus, niger; subtus nitidus, prosterno rufo-fulvo; supra subopacus; thorace transverso, lateribus a basi ad apicem oblique convergentibus, medio obsolete angulatis, dorso transversim convexo, pone medium transversim excavato, crebre punctato, utrinque vitta lata subtorulosa, fere impunctata, fulva instructo; elytris anguste oblongis, parallelis, apice rotundatis, ad suturam leviter conjunctim emarginatis, lateribus minute, apice distinctius, serrulatis; utrisque plaga brevi humerali fulva ornatis, decem-, basi extrema undecim-seriato-punctatis, interspatio secundo valde costato, quarto et octavo, nec non sutura, leviter elevatis.

Long. 3 lin.

Hab. Mexico, Oaxaca, Capulalpam (*Sallé*).

Antennæ about one third the length of the body, very slightly thickened towards the apex; joints cylindrical. Thorax nearly twice as broad as long at the base; sides obsoletely angulate, quickly converging from base to apex; upper surface closely punctured, transversely excavated behind the middle, either side with a broad submarginal, torulose, nearly impunctate, fulvous vitta. Elytra narrowly oblong, parallel and finely serrulate on the sides, regularly rounded at the apex, conjointly emarginate at the suture, the apical margin rather more strongly serrulate; each elytron with ten, at the extreme base with eleven, rows of punctures; the second interspace strongly costate, the fourth and eighth interspaces, together with the suture, slightly elevated.

Separated from *C. deyrollei* by its smaller size, broader thorax, and by the more regularly rounded apices of the elytra.

60 (b). **Chalepus fraternalis.**

Subelongatus, niger; subtus nitidus, prosterno, femoribusque anticis basi, fulvis; supra opacus, thoracis vittis duabus latis sublateralibus, apice abbreviatis, rufo-fulvis; thorace transverso, subconico, disco fortiter punctato, pone medium transversim excavato, utrinque ad latus minus crebre punctato, velutino; elytris subparallelis, apice rotundatis, ad suturam conjunctim emarginatis; lateribus minute serrulatis, margine apicali irregulariter serrato; utrisque decem-, basi extrema undecim-seriato-punctatis, interspatiis secundo et quarto valde costatis, octavo toto, sexto basi, nec non sutura, modice elevatis.

Var. A. Elytris singulis plaga magna marginali, a basi ad medium extensa, rufo-fulva ornatis.

Var. B. Elytrorum plaga rufo-fulva ad marginem non extensa.

Long. $3\frac{1}{2}$ lin.

Hab. Guatemala, Las Mercedes 3000 feet (*Champion*).

Antennæ rather more than one third the length of the body, very slightly thickened towards the apex; joints cylindrical. Thorax transverse, subconic, sides quickly converging from the base towards the apex; upper surface transversely excavated on the hinder disc, coarsely punctured, a broad rufo-fulvous vitta on either side, extending nearly to the lateral border, but abbreviated just before reaching the apical margin, less

deeply punctured. Elytra narrowly oblong, subparallel, finely serrulate on the sides, regularly rounded at the apex, conjointly emarginate at the sutural angle, the apical margin serrate; each elytron with ten, at the base with eleven, rows of punctures; the second and fourth interspaces rather strongly costate, the eighth, the sixth on its basal half, together with the suture, less distinctly elevated.

Nearly allied to the preceding species and to *C. deyrollei*, but separated from both by the coarser serrations of the apical margin of the elytra, and by the second and fourth interspaces being equally strongly costate.

UROPLATA (p. 92).

Uroplata fairmairei (p. 95).

The following are localities for *Var.* A:—Mexico, Jalapa (*Sallé*); Guatemala, Las Mercedes 3000 feet (*Champion*).

Var. B. Elytris fulvis, plaga communi basali, vitta laterali a basi ad elytri tertiam partem extensa, trienteque postico, nigris.

Hab. Mexico, Playa Vicente (*Sallé*); Panama, Tolé (*Champion*).

3 (a). **Uroplata sanguinipennis.**

Anguste oblonga, subparallela, nigra, nitida, pectoris medio fulvo; thorace lateribus angustis, disco crebre et profunde punctato, pone medium leviter transversim excavato, fulvo, vitta lata discoidali lateribusque nigris; elytris a basi apicem versus leviter ampliatis, apice conjunctim obtuse rotundatis, ad suturam leviter conjunctim emarginatis, lateribus obsolete, apice distincte et irregulariter, serratis; utrisque octo-seriato-costatis, interspatiis secundo, tertio, quarto quintoque modice costatis, primo sextoque minus distincte elevatis; sanguinosis, linea suturali, male definita, ante apicem fere obsoleta, plagaque marginali basi, nigris.

Long. $2\frac{3}{4}$ lin.

Hab. Panama, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Vertex and front quadrisulcate, the outer grooves ill defined; antennæ half the length of the body, very slightly thickened towards the apex, moderately compressed. Thorax transverse; sides angulate, bisinuate; upper surface coarsely and deeply punctured, transversely excavated on the hinder disc. Elytra subparallel, very slightly dilated from the base towards the apex, the latter obtusely rounded, broadly and slightly emarginate at the suture, the lateral margin obsoletely, the apical one strongly and irregularly, serrate; each elytron with eight rows of deep, transverse punctures, the second, third, fourth, and fifth interspaces elevated, the first and sixth less distinctly thickened.

This species must follow *U. fairmairei*.

18 (a). **Uroplata coxalgica.**

Subfiliformis, fulva, nitida; antennis, capitis macula parva verticali, thoracis vitta discoidali, scutello, elytrorum vitta suturali (postice abbreviata), mesopleuræ linea, coxis, femoribusque dorso ad apicem, nigris; tarsis

nigro-piceis; thorace subcylindrico, rude et crebre punctato, lateribus rotundatis; elytris parallelis, apice rotundatis, ad suturam leviter conjunctim emarginatis; lateribus sinuatis, minute serrulatis, margine apicali paullo ampliato, breviter serrato; utrisque octo-seriato-punctatis, stria octava medio obsoleta, interspatiis secundo, quarto sextoque costatis.

Long. 3 lin.

Hab. MEXICO, Toxpam (*Sallé*).

Vertex and front impunctate, the latter with a faintly raised longitudinal ridge, the surface on either side of which is obsoletely sulcate. Antennæ less than half the length of the body, slightly thickened towards the apex; joints cylindrical. Thorax rather broader than long; sides rounded, converging at base and apex; surface coarsely and deeply punctured. Elytra elongate, parallel, sinuate on the sides, the latter finely serrulate; apices rounded, conjointly emarginate at the suture, the apical margin slightly dilated, armed with very short teeth; each elytron with eight rows of punctures, the outer row broadly interrupted, the second, fourth, and sixth interspaces costate.

Nearly allied to *U. elegantula* (in which species the outer row of punctures is also interrupted), but much narrower in form and more elongate.

Uroplata vittatipennis (p. 95).

***Var.* A. Elytrorum linea brevi subapicali fulva, cæteris ut in typo.**

To the locality given, add:—HONDURAS (*Sallé*); COSTA RICA (*Van Patten*).

Fam. CASSIDIDÆ *.

The characters used to separate this Family from the Hispidæ are of exceedingly doubtful value; and some of the species placed in *Himatidium* by Boheman really belong to *Demotispa*, Baly, a genus of Hispidæ. Most of the South-American genera are represented within our limits by at least one species, but several are wholly absent, as *Sphæropalpus*, *Calopepla*, *Calliaspis*, *Spilophora*, *Canistra*, and *Pœcilaspis*. The head-quarters of the family in the New World is in Tropical South America. *Chelymorpha* and *Physonota* are perhaps the most characteristic genera of the Central-American Cassididæ, and *Platycycla* is peculiar to Mexico and Guatemala. *Eurypepla* is common to the Antilles and Yucatan. Further remarks on the distribution of the Central-American representatives of the family will be given in the "Introduction" to this Volume.

Section I. *Antennæ rigid, the joints very closely articulated; first and second ventral segments more or less connate; prothorax deeply emarginate in front, leaving the head exposed; claws simple.*

To this section also belong the South-American genera *Sphæropalpus*, *Calopepla*, *Calliaspis*, and *Spilophora*, and the Eastern genera *Epistictia*, *Megapyga*, and *Prioptera*.

DELOCRANIA.

Delocrania, Guérin, Mag. Zool. 1844, Ins. t. 131. p. 1; Boheman, Monogr. Cassid. i. p. 4, t. 1. figg. A, 1–5.

This remarkable genus contains three or four closely allied species, all peculiar to Tropical America; one only, *D. cossyphoides*, Guér., has been described. It has the first and second ventral segments connate, the suture between them being almost obliterated in the middle.

1. **Delocrania panamensis.** (Tab. V. fig. 1.)

Oblong, subparallel, dull ferruginous, the dilated margins of the prothorax and elytra flavo-testaceous; the antennæ ferruginous, with the five or six outer joints (the tip of the eleventh excepted) infuscate or piceous. Head with a few rather coarse punctures behind, canaliculate in the middle in front. Prothorax moderately coarsely, irregularly, and closely punctured on the disc; the margins somewhat thickly covered with transverse or oblique foveæ, each formed by two confluent punctures. Elytra scarcely wider than the prothorax, subparallel in their basal half; the disc coarsely and closely seriate-punctate, the suture and the fifth interstice costate; the margins with four rows of moderately coarse impressions, those of the innermost row (the ninth from the suture) coarser and deeper than the others, the interspaces feebly transversely wrinkled; beneath shining, very sparsely, minutely punctured.

Length 5, breadth 2½ millim.

* By G. C. Champion.

Hab. Panama, Bugaba (*Champion*).

Three examples, found in the forest-region of the "tierra caliente" of Chiriqui. These differ from the Amazonian specimen of *D. cossyphoides*, Guér., in the British Museum, determined by Boheman, and from a second from the same locality in the Baly collection, in having an additional row of impressions on the expanded margins of the elytra, the innermost (the ninth from the suture) being also much less coarse. *D. panamensis* is perhaps an extreme form of the rare *D. cossyphoides*, but in any case it is advisable to name it. To avoid future confusion, the description of an allied South-American species is added below *.

HIMATIDIUM.

Imatidium, Fabricius, Syst. Eleuth. i. p. 345 (1801).
Himatidium, Illiger, Mag. iii. p. 131 (1804); Boheman, Monogr. Cassid. i. p. 63.

A Tropical-American genus containing numerous described species, four only of which inhabit Central America. Chapuis has noted an important character in this genus, viz. the more or less connate first and second segments of the abdomen, this peculiarity being common to the Hispidæ; *Himatidium*, in fact, forms one of the connecting-links between the families Cassididæ and Hispidæ. *H. limbatellum*, Boh., from Mexico, was transferred by Baly to the genus *Demotispa*, see *anteà*, p. 28.

1. **Himatidium impurum.** (Tab. V. figg. 2, 3, 4, vars.)

Himatidium impurum, Boh. Monogr. Cassid. i. p. 68 [1], and iv. p. 30 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 12 [3].
Himatidium foveicolle, Boh. Monogr. Cassid. iv. p. 30 [4].

Hab. Mexico (*coll. Baly*), Teapa in Tabasco (*H. H. Smith*); Guatemala (*coll. Baly* [4]), San Juan in Vera Paz (*Champion*); Nicaragua, San Juan (*Sallé*), Chontales (*Janson*); Panama, Bugaba (*Champion*).—Brazil [1 2 3].

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* **Delocrania latipennis.**

Obscure ferruginous, the outer portion of the disc of the elytra darker; the margins of the prothorax dilute ferruginous, becoming flavous in front; the margins of the elytra dilute flavo-testaceous, ferruginous at the extreme base; the antennæ obscure ferruginous. Head with a few rather coarse punctures behind, depressed and canaliculate in front. Prothorax densely and rather coarsely punctured on the disc; the margins thickly covered with irregular foveæ, each formed by two confluent punctures. Elytra considerably wider than the prothorax, subparallel, separately rounded at the apex; the disc coarsely and closely seriate-punctate, the suture and the fifth interstice, and the third interstice at the base, costate; the margins concave towards the base, with four rows of impressions—those of the innermost row (the ninth from the suture) exceedingly coarse and deep, and somewhat distant from each other, those of the three outer rows rather irregular, small, shallow, and closely packed, and separated from the inner row by a distinct space in which traces of another row of small impressions is visible,—the interspaces feebly transversely wrinkled.—Length $5\frac{1}{2}$ millim.

Hab. Ecuador (*coll. Baly*). One example.

A very variable insect as regards the maculation of the elytra, and, to some extent, in the intensity of the punctuation of the prothorax. The different forms may be particularized thus:—

α. The elytra with numerous black markings on the dorsum—a small spot close to the suture below the scutellum (sometimes confluent with the one on the opposite elytron), two spots or oblique streaks (of variable size) on the disc close to the base, a rounded lateral patch before the middle, and a broad post-median fascia, the latter with an angular projection near the middle of the disc in front, and often confluent externally with the lateral spot,—and a more or less distinct ante-apical pale yellow fascia; the black markings in some specimens largely extended, forming on the outer part of the dorsum a broad longitudinal stripe from the post-median fascia forwards, and enclosing two yellow spots. (Fig. 2.)—*Hab.* Panama, Bugaba. Many examples.

β. The black markings much reduced in extent, consisting of five oblong or oblique spots on each elytron, and a common oblong sutural patch a little beyond the middle. (Fig. 3.)—*Hab.* Panama, Bugaba. One example.

γ. The elytra with a small or indistinct black spot near the suture below the scutellum and an oblong larger one between the sixth and ninth rows of punctures at about one-third from the base. [*H. impurum*, Boh., including his var. *a*. (Fig. 4.)]—*Hab.* Mexico; Guatemala; Nicaragua; Brazil. Five examples seen.

δ. The elytra immaculate; the prothorax almost impunctate at the sides and anteriorly. (*H. foveicolle*, Boh.)—*Hab.* Guatemala. One example.

In some of the specimens of the form δ the scattered punctures on the prothorax are coarser and more numerous, extending nearer to the anterior angles. The antennæ are sometimes entirely testaceous. The prothorax is deeply transversely excavate on either side of the disc behind; and it is strongly plicate near the base, from the median lobe to the lateral margin, the base of the elytra overlapping that of the prothorax, a character not mentioned by Boheman. Boheman[2] gives "Mexico (*Sallé*)" as the locality for *H. impurum*, var. *a*: Sallé's specimen, marked 'type,' is labelled "San Juan, Nicaragua." In the form δ the dark post-median fascia is represented by a distinctly visible brownish stain. The form α was found in plenty by myself in the forest region of the "tierra caliente" of Chiriqui, upon the broad leaves of Heliconiiæ.

2. Himatidium thoracicum.

Imatidium thoracicum, Fabr. Syst. Eleuth. i. p. 346[1].
Himatidium thoracicum, Boh. Monogr. Cassid. i. p. 70[2], and iv. p. 31[3]; Cat. Col. Ins. Brit. Mus. ix. p. 13[4]; Wag. Mittheil. Münch. ent. Ver. i. p. 51[5].
Cassida albicollis, Oliv. Ent. vi. no. 97, p. 974, t. 6. fig. 105[6].
Imatidium albicolle, Latr. in Humb. et Bonpl. Obs. Zool. i. p. 143[7].

Hab. Panama, Bugaba (*Champion*).—Colombia[2 3 4], Muzo[5], Rio Magdalena[5]; Guiana, Cayenne[2 3 4]; Ecuador; Amazons, Pará[4]; Brazil[2 3 4].

Two specimens of this species have been found in the State of Panama. The prothorax is quite smooth and unimpressed; the antennæ are short, with the third joint not much longer than the fourth.

3. **Himatidium rufomarginatum.** (Tab. V. fig. 5.)

Himatidium rufomarginatum, Boh. Monogr. Cassid. i. p. 75 [1], and iv. p. 31 [2].

Hab. MEXICO [1 2].

The type from the Stockholm Museum is figured.

4. **Himatidium rufiventre.** (Tab. V. fig. 6.)

Himatidium rufiventre, Boh. Monogr. Cassid. i. p. 73 [1], and iv. p. 31 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 13 [3].

Hab. PANAMA, Volcan de Chiriqui 2500 feet (*Champion*).—BRAZIL [1–3].

One specimen from Chiriqui, agreeing perfectly with others from Brazil.

CALYPTOCEPHALA.

Calyptocephala, Erichson, Archiv für Naturg. xiii. p. 151 (1847); Boheman, Monogr. Cassid. i. p. 100.

Eight species of this genus have been described *, all Tropical American, ranging, like those of *Himatidium*, from Southern Mexico to Brazil. In *Calyptocephala* the first and second ventral segments are connate, and the mentum is carinate down the middle.

1. **Calyptocephala brevicornis.** (Tab. V. fig. 7.)

Calyptocephala brevicornis, Boh. Monogr. Cassid. i. p. 103 [1], and iv. p. 44 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 17 [3]; Wag. Mittheil. Münch. ent. Ver. i. p. 51 [4].

Hab. MEXICO, Atoyac in Vera Cruz (*H. H. Smith*); GUATEMALA, Panzos (*Conradt*), Panima in Vera Paz (*Champion*); NICARAGUA, Chontales (*Belt*, *Janson*); PANAMA, Volcan de Chiriqui, Caldera (*Champion*).—COLOMBIA, Ocaña [4]; VENEZUELA [3]; AMAZONS, Pará [3], Ega [2]; BRAZIL [1 2].

Central-American specimens agree with one from Brazil, determined by Boheman, in the Baly collection. The species varies considerably in size.

2. **Calyptocephala marginipennis.** (Tab. V. fig. 8.)

Calyptocephala marginipennis, Boh. Monogr. Cassid. i. p. 105 [1], and iv. p. 46 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 18 [3].

Hab. MEXICO [1–3], Cordova (*Sallé*), Jalapa, Misantla (*Höge*).

* *C. procerula*, Boh., from Peru, the type of which is before me, doubtfully belongs to the same genus; it has the third joint of the antennæ very little longer than the second.

Var. The elytra more broadly, especially posteriorly, bordered with cæruleous, the outer limb sometimes ferruginous; the sides of the prothorax also broadly bordered with cæruleous.

Hab. GUATEMALA, Cubilguitz, Chacoj, La Tinta, Teleman, and Panima, all in Vera Paz (*Champion*), Panzos (*Conradt*); NICARAGUA, Chontales (*Belt, Janson*).

The type of this species has the thorax entirely testaceous, the elytra bordered with cæruleous. The variety is coloured like *C. gerstæckeri*, Boh., from Bolivia; but it differs from that insect, to judge from the description, in the more coarsely punctured margins of the elytra. In *C. marginipennis* the elytral margins are very coarsely, closely, and irregularly punctured, the punctures very much coarser than in *C. brevicornis*; of this no mention is made by Boheman [1]. The cæruleous border does not always extend to the lateral and apical margins of the elytra, these parts being sometimes ferruginous, both in the type and in the variety. The tarsi are sometimes stained with piceous. The antennæ are entirely black.

3. **Calyptocephala discoidea.** (Tab. V. fig. 9.)

Subovate, rather convex; cæruleous, the elytra with the entire disc from the base to about one-third from the apex flavo-testaceous or stramineous; the scutellum cæruleous, ferruginous, or testaceous; the antennæ black or piceous, the basal one or two joints sometimes rufo-testaceous; the under surface and legs entirely flavo-testaceous. Head smooth, depressed and canaliculate in the middle in front; antennæ filiform, rather slender, moderately long. Prothorax short, moderately dilated at the sides, widest at the middle, the sides rounded in front and behind, the lateral margins not reflexed; the anterior lateral portions declivous, not projecting beyond the median portion (as viewed from above), and somewhat oblique; the base obliquely subtruncate on either side and with a broad median lobe; the disc convex, smooth, sometimes with an irregular depression in the middle at the base, or with a fovea on either side behind; the margins flat, concave towards the disc, with a few irregularly scattered, moderately coarse, punctures. Scutellum smooth. Elytra about four times the length of, and one half broader than, the prothorax, deeply emarginate at the base, rapidly narrowing from about the basal third, the humeri rounded and prominent, the apices conjointly rounded; the disc with regular rows of moderately coarse punctures, which become very fine towards the apex, the interstices smooth; the margins broadly expanded, very coarsely, irregularly, and somewhat closely punctured, the punctures coarser than those of the striæ. Beneath shining, smooth.
Length 5–5½, breadth 4 millim.

Hab. PANAMA, Bugaba (*Champion*).

Many specimens. Allied to *C. marginipennis*, but differing from it in having the prothorax entirely cæruleous, shorter, more declivous in front (thus appearing less emarginate), and depressed on either side of the disc, the lateral margins not at all reflexed; the elytra more rounded at the shoulders. The margins of the elytra are coarsely punctured in both species.

Section II. *Antennæ with the joints less closely articulated; first and second ventral segments connate or freely articulated.*

1. *Prothorax emarginate or truncate in front, the head more or less prominent, usually well exposed.*

a. *Claws simple.*

To group 1 of this section also belong the South-American genera *Canistra* and *Pœcilaspis*, the Antillean genus *Elytrogona*, and the Eastern genus *Hoplionota*.

PORPHYRASPIS.

Porphyraspis, Hope, Col. Man. iii. p. 154 (1840); Boheman, Monogr. Cassid. i. p. 89.

Twenty species of this peculiar genus have been described, all but one from Tropical South America or the Antilles, the latter, *P. cyanea*, Say (= *erythrocera*, Germ.), being from the Southern States of North America. No representative of the genus has been discovered as yet in Mexico. The sculpture of the elytra in some of the species is very like that of *Chlamys*, and it is difficult to describe in an intelligible manner. Three species of *Porphyraspis* are now recorded from within our limits, two from the State of Panama and one from Guatemala.

a. *Elytra feebly and regularly costate on the disc.*

1. Porphyraspis circumdata. (Tab. V. fig. 10.)

Porphyraspis circumdata, Boh. Monogr. Cassid. i. p. 94[1], and iv. p. 38[2]; Cat. Col. Ins. Brit. Mus. ix. p. 16[3].

Hab. PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).—COLOMBIA [1-3].

Numerous examples.

b. *Elytra with sharply raised, irregular, transversely connected costæ on the disc.*

2. Porphyraspis flexuosa. (Tab. V. fig. 11.)

Rotundate, short, very convex, obscure sanguineous, shining, the anterior angles of the prothorax yellowish; the antennæ, legs, and under surface testaceous. Head almost smooth, canaliculate in the middle in front; antennæ short, only extending a little beyond the humeri, rather stout, considerably thickened towards the tip. Prothorax short, broadly and deeply emarginate in front, and moderately dilated at the sides; the sides rounded, abruptly and subarcuately converging anteriorly; the anterior angles rather sharp; the disc moderately convex, strongly transversely depressed before the middle, obliquely grooved on either side behind, and with an interrupted median channel, sparsely, irregularly, rather coarsely punctured in front and on either side at the base; the lateral portions deeply excavate, exceedingly coarsely punctured. Scutellum almost smooth. Elytra very much wider than the prothorax, short, rounded at the sides, widest at the middle, deeply emarginate in front, obtuse behind, the humeri prominent and somewhat dentiform; the disc gibbous, with irregular close series of coarse, deep, partly confluent impressions, and a smooth, prominent humeral callus, between which and the suture are two sharply raised carinæ, these extending downwards nearly to the apex and here and there connected with each other, and with the sharply raised suture before the middle, by oblique or transverse rami, the other interspaces more or less transversely plicate; the margins moderately expanded, with a double series of exceedingly coarse rounded foveæ, the interspaces irregularly transversely plicate. Beneath shining, almost smooth.

Length $3\frac{1}{2}$, breadth $3\frac{1}{4}$ millim.

Hab. PANAMA, Bugaba (*Champion*).—COLOMBIA, Santa Marta (*Mus. Brit.*).

One specimen from each locality. A small species allied to *P. cyclica*, Boh., from Guiana, and *P. reticulata*, Wag., from S. America. It is much smaller than *P. cyclica*, and has the disc of the prothorax more uneven and the carinæ on the elytra more

sharply raised. So far as it goes, the imperfect description of *P. reticulata* agrees very nearly with *P. flexuosa*; but there are discrepancies in several details. The very sharply raised carinæ form two zigzag series on the disc of each elytron, these being here and there connected with each other and with the suture before the middle by oblique rami. Our figure and description are taken from the Bugaba specimen.

3. **Porphyraspis marginata.** (Tab. V. fig. 12.)

Rotundate, short, very convex, pitchy-black, very shining, the margins of the prothorax and elytra, narrowly, the front of the head, the antennæ, legs, and under surface, flavo- or rufo-testaceous. Head almost smooth, finely canaliculate in front; antennæ short, only extending a little beyond the humeri, considerably thickened towards the tip. Prothorax short, broadly and deeply emarginate in front, and moderately dilated at the sides; the sides rounded, crenulate and somewhat obliquely converging anteriorly; the anterior angles dentiform; the disc convex, smooth behind, rather coarsely punctured in front; the lateral portions deeply excavate, and exceedingly coarsely punctured. Scutellum almost smooth. Elytra very much wider than the prothorax, short, rounded at the sides, widest at the middle, deeply emarginate in front, obtuse behind, the humeri prominent and somewhat dentiform; the disc gibbous, with irregular series of coarse, deep, partly confluent impressions, and a prominent, smooth, humeral callus, the suture sharply raised, a sharp carina extending obliquely outwards from it before the middle, this being connected anteriorly with a carina extending forwards to the base midway between the humeral callus and the suture, and posteriorly with a carina extending along the second interstice to the apex, the other interspaces irregularly transversely plicate; the margins moderately expanded, with series of very coarse punctures, the interspaces transversely plicate. Beneath shining, almost smooth.

Length $3\frac{1}{4}$–$3\frac{1}{2}$, breadth 3 millim.

Hab. GUATEMALA, Panzos and Sabo in Vera Paz, Cerro Zunil (*Champion*), Coban (*Conradt*).

Six examples. In having the prothorax and elytra margined with flavo-testaceous, this small species resembles *P. rugosa*, Boh., from Brazil; but it differs from that insect in the sculpture of the prothorax and elytra, and in its smaller size. The sculpture of the elytra somewhat resembles that of *P. sanguinea* (Fabr.), *P. coccinea*, Boh., &c.

TAUROMA.

Tauroma, Hope, Ann. Nat. Hist. iii. p. 97, t. 4. fig. 4 (1839); Boheman, Monogr. Cassid. p. 113.
Tauroma, subg. *Omocera*, Chapuis, Gen. Col. xi. p. 373.

A Tropical-American genus containing numerous species, two only of which belong to the Central-American fauna. According to Chapuis's arrangement, both these belong to his subgenus *Omocera*, *Tauroma* proper belonging to the South-American continent.

1. **Tauroma casta.** (Tab. V. figg. 13, 14.)

Tauroma casta, Boh. Monogr. Cassid. iv. p. 54[1].
Tauroma cæruleopunctata, Boh. loc. cit. p. 56[2].

Hab. GUATEMALA (*Scherzer, in coll. Baly*); NICARAGUA (*Sallé*[2]), Chontales (*Belt*,

Janson); Costa Rica [1] (*coll. Baly, Rogers*); Panama, Chiriqui (*Ribbe, Trötsch*), Volcan de Chiriqui 2500 feet (*Champion*).

Var. The upper surface dull bronze-black, with a greenish or bluish lustre; the elytra more sparsely punctured, the interspaces sometimes irregularly raised.

Hab. Nicaragua, Chontales (*Janson*); Panama, Volcan de Chiriqui (*Champion*).

With a long series of specimens it is impossible to separate *T. cœruleopunctata* from *T. casta*, the types of which are before me. Typical *T. cœruleopunctata* have the elytra more sparsely punctured and the interspaces less coriaceous, but intermediate forms occur. The colour is variable, as is also the length of the humeral process of the elytra. Of the variety two specimens only have been seen. *T. cœruleopunctata* is doubtfully recorded by Boheman [2] as from New Orleans, which is evidently a mistake; the specimen in the Baly collection named by him [2] is from Guatemala. Fig. 13 is taken from the type of *T. casta*, fig. 14 from that of *T. cœruleopunctata*.

2. **Tauroma azureicornis.** (Tab. V. fig. 15.)

Omocerus azureicornis, Chevr. Col. Mex., Cent. ii. fasc. 5, no. 119 (1835) [1].
Tauroma azureicornis, Boh. Monogr. Cassid. i. p. 120 [2], and iv. p. 58 [3]; Cat. Col. Ins. Brit. Mus. ix. p. 20 [4].

Hab. Mexico [1], Playa Vicente, Santecomapan (*Sallé*), Minatitlan (*Höge*), Teapa in Tabasco (*coll. Baly*); Guatemala, Panzos (*Conradt*); Nicaragua, Chontales (*coll. Baly*); Costa Rica, Caché (*Rogers*).

Var. The upper surface dull brassy-cupreous, the punctures golden-green at the bottom.

Hab. Mexico, Minatitlan (*Höge*). One specimen.

This insect is much more shining than *T. casta*, and it has the prothorax as well as the elytra coarsely punctured, the punctures on the elytra much more numerous. The single specimen from Costa Rica has the humeral process more elongate, and the suture more raised below the base. The locality quoted by Chevrolat [1] is "Toulepeck."

DESMONOTA.

Desmonota, Hope, Ann. Nat. Hist. iii. p. 97, t. 4. figg. 5 (1839); Boheman, Monogr. Cassid. i. p. 137.
Tauroma, subg. *Desmonota*, Chapuis, Gen. Col. xi. p. 374.

One species only of this genus, which contains some familiar and abundant Brazilian insects, is known to me as yet from within our limits. *Desmonota* is sunk by Chapuis as a subgenus of *Tauroma*. It is exclusively confined to Tropical America, just entering our southern limits.

1. Desmonota multicava.

Cassida multicava, Latr. in Humb. et Bonpl. Obs. Zool. i. p. 210, t. 22. figg. 8, 9 [1].
Polychalca multicava, Erichs. Archiv für Naturg. xiii. p. 151 [2].
Desmonota multicava, Boh. Monogr. Cassid. i. p. 151 [3], and iv. p. 64 [4]; Cat. Col. Ins. Brit. Mus. ix. p. 24 [5]; Wag. Mittheil. Münch. ent. Ver. i. p. 52 [6].

Hab. Panama, Bugaba, David (*Champion*), Chiriqui (*Ribbe*), Panama city (*Conradt, J. J. Walker*).—Colombia [3–6]; Venezuela [4 5]; Peru [1 2 4 5].

Upwards of a dozen examples of this species have been received from the State of Panama.

DOLICHOTOMA.

Dolichotoma, Hope, Ann. Nat. Hist. iii. p. 95, t. 4. fig. 2 (1839); Boheman, Monogr. Cassid. i. p. 176.

A Tropical-American genus containing some of the finest species of the Family Cassididæ. The males of all the species of *Dolichotoma* known to me have the antennæ much longer than in the females, the apical joint with numerous very long projecting hairs at the tip beneath, the preceding four joints also with a few shorter hairs at the same place. The hairy apical joint is mentioned by Boheman, though he was not aware that it was a sexual character; it has been overlooked by Chapuis and Baly. *Dolichotoma* is chiefly distinguished from *Canistra*, a genus not represented within our limits, by having the joints 1–6 (instead of 1–5) of the antennæ short, shining, and subglabrous, the other joints being elongate, opaque, and very finely, densely pubescent.

1. Dolichotoma bisbiplagiata. (Tab. V. figg. 16, ♂; 16 *a*, antenna, ♂.)

Dolichotoma bisbiplagiata, Boh. Cat. Col. Ins. Brit. Mus. ix. p. 31 [1]; Monogr. Cassid. iv. p. 80 [2].

Hab. Guatemala (*Deby, in Mus. Brit.* [1 2]), Cubilguitz in Vera Paz (*Champion*), Panzos in Vera Paz (*Champion, Conradt*).

Apparently confined to the forest-region of the Atlantic slope of Guatemala, and to the "tierra caliente."

2. Dolichotoma distincta. (Tab. V. fig. 17, ♂.)

Dolichotoma distincta, Baly, Trans. Ent. Soc. Lond. 1869, p. 83 [1].
Dolichotoma princeps, Boh. Cat. Col. Ins. Brit. Mus. ix. p. 31 (part.) [2].

Hab. Guatemala (*Scherzer, in Mus. Brit.*); Nicaragua (*coll. Baly* [1], *Sallé*), Chontales (*Belt, Janson*); Costa Rica (*Sallé, Van Patten*).

This insect appears to be not uncommon in Nicaragua and Costa Rica. The colour of the upper surface varies from greenish-æneous to bluish-black or black. The margins of the elytra are much more broadly expanded than in the allied *D. princeps* and *D. biplagiata*, Boh., and they have a large rounded sanguineous patch a little

before the middle. *D. distincta* is probably a variety of the preceding with the discal spot on each elytron obliterated. The Guatemalan specimen in the British Museum determined as *D. princeps* by Boheman [2] belongs here; there is perhaps some mistake about this locality, as all the Guatemalan specimens I have seen of this genus belong to the preceding, *D. bisbiplagiata*.

3. Dolichotoma conspersipennis. (Tab. V. fig. 18, ♂.)

Dolichotoma conspersipennis, Boh. Monogr. Cassid. iv. p. 74 [1].

Hab. GUATEMALA (*Mus. Brit.*); COSTA RICA [1] (*Mus. Brit.; coll. Baly*); PANAMA, Chiriqui (*Ribbe*), Bugaba, Volcan de Chiriqui, Tolé (*Champion*).

The type of this species (♂) is contained in the Baly collection. *D. conspersipennis* is closely allied to the variable *D. variegata* (Fabr.), from Cayenne. Panama specimens are much smaller than the type, and they have the elytra more rugosely punctured. The two transverse markings in the expanded margins of the elytra are much smaller and narrower than in *D. variegata*, and they are usually disconnected and distant from the similarly coloured exterior limb; the anterior one, as well as several of the spots on the disc, is often entirely obsolete. The colour of the prothorax and of the markings of the elytra varies from greenish-æneous to black; the prothorax often has an oblong sanguineous spot on either side of the disc behind. The type from the Baly collection is figured.

4. Dolichotoma salvini. (Tab. V. figg. 19, ♂; 20, ♀.)

Dolichotoma salvinii, Baly, Trans. Ent. Soc. Lond. 3rd ser. ii. p. 241 [1].

Hab. PANAMA [1], Lion Hill (*M'Leannan*).—COLOMBIA.

I have seen five specimens of this species from the Isthmus of Panama. They vary a good deal as regards the distribution of the æneous colour on the elytra, the disc being sometimes wholly suffused. The broadly expanded margins are marked with from 6–8 irregular spots, the anterior ones being strongly transverse and larger than the others, all distant from the similarly-coloured exterior limb. A single specimen from Colombia in the Baly collection no doubt belongs to a variety of the same species; it has the elytra entirely greenish-æneous, with the exception of a large sanguineous patch on the expanded margin before the middle, this patch being marked with three irregular transverse æneous fasciæ. Another specimen in the same collection is intermediate between this and the var. B of Baly.

5. Dolichotoma anomala.

Dolichotoma anomala, Boh. Monogr. Cassid. iv. p. 87 [1].

"Subrotundata, modice convexa, subtus nigra, nitida; prothorace obscure viridi-cærulescente, opaco, vix punctato, medio breviter, tenuiter canaliculato; elytris flavis, antice plaga magna, subtiliter, remote, seriatim punctata, postice in singulo emarginata, sutura limboque viridi-cærulescentibus, dorso postico

reticulo tenui, parum elevato, areolas minores, leviter impressas, ad suturam seriatas, fundo puncto minuto notatas includente instructis, ad scutellum leviter retusis et gibbosis.—Long. 14½, lat. 12¼ millim."

Hab. Costa Rica * (*coll. Dohrn* [1]).

Unknown to me.

b. *Claws appendiculate.*

CALASPIDEA.

Calaspidea, Hope, Col. Man. iii. p. 183, t. 3. fig. 1 (1840); Boheman, Monogr. Cassid. i. p. 208.

The northern limit for this Tropical-American genus, which contains some of the giants of the Family, is probably in Costa Rica. The locality for *C. alurna* requires corroboration.

1. **Calaspidea columbina.** (Tab. V. fig. 21.)

Calaspidea columbina, Boh. Monogr. Cassid. i. p. 212 [1], and iv. p. 91 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 35 [3]; Wag. Mittheil. Münch. ent. Ver. i. p. 53 [4].

Hab. Costa Rica (*Pittier, in Mus. Brit.*); Panama, Chiriqui (*Ribbe*), Bugaba, Volcan de Chiriqui (*Champion*).—Colombia [1–4].

Not uncommon in Chiriqui.

2. **Calaspidea alurna.**

Cassida (*Calaspidea*) *alurna*, Westw. Ann. & Mag. Nat. Hist. viii. p. 204 (1842) [1].

Hab. ? Mexico (*coll. Melly* [1]); ? Panama.

This species was not identified by Boheman. In the Baly collection there is a specimen labelled with this name, and marked as from Panama, agreeing fairly well with the description, so far as it goes, except that the spots on the broad fulvous marginal vitta of the elytra are more numerous (Westwood gives 5 or 6). The locality "Mexico," like that for *Alurna cassideus* †, a species of Hispidæ described by Westwood on the same page, is certainly a mistake, and it is exceedingly probable that both insects are from Brazil. The locality of Baly's specimen is equally doubtful. *C. alurna* is evidently a very close ally of the Brazilian *C. imperialis*, Boh.

MESOMPHALIA.

Mesomphalia, Hope, Ann. Nat. Hist. iii. p. 94, t. 4. fig. 1 (1840); Boheman, Monogr. Cassid. i. p. 218.

About 250 species of this genus have been described, all American, ranging from Mexico to the Argentine Republic, but especially numerous in the warmer parts of the southern continent. When larger series of some of the southern forms are collected, it is certain that many of them will have to be sunk as varieties. Of the

* The locality is given as "Bahia" in the Munich Catalogue.

† See *anteà*, p. 6.

Mexican species, I have been compelled to sink several of those described by Boheman, our extensive series clearly showing the variable nature of some of them. Nineteen only are now recorded from within our limits; they may be identified by the following Table:—

Colour æneous, cæruleous, or green.
  Elytra transversely gibbous below the base, each with three sanguineous spots which are sometimes coalescent . . . . *punicea*, Boh., and vars.
  Elytra not or feebly gibbous below the base.
    Anterior margin of the prothorax concolorous with the other part.
      Each elytron with three red or yellow spots.
        Species very large; elytra uniformly punctured on the disc . . . *illustris*, Chevr.
        Species smaller; elytra unequally punctured . . . . *tristigma*, Boh.
      Each elytron with two transversely placed red or yellow spots, sometimes coalescent, the inner one sometimes obsolete (*M. lebasi*, var. δ); surface distinctly punctured.
        Humeri rounded: species moderately large . . . . *lebasi*, Boh., and vars.
        Humeri subangular: species smaller . . . . *quadrinotata*, Boh.
      Each elytron with a single sublateral reddish spot; surface almost smooth . . . . *costaricensis*, n. sp.
    Anterior margin of the prothorax flavo-testaceous or fulvous.
      Each elytron with three large yellow spots, the posterior two coalescent. *xanthospila*, n. sp.
      Each elytron with two large obliquely placed yellow spots . . . . . *quadriguttata*, n. sp.
      Each elytron with two large transversely placed yellow spots, sometimes coalescent or dotted with æneous: species large; male cordate, female ovate . . . . *salvini*, Baly.
      Each elytron largely marked with sanguineous, the sanguineous colour sometimes reduced to three spots: species small; male rotundate, female ovate . . . . *pictilis*, Boh., and vars.
Colour black; the elytra with a broad flavous black-spotted lateral vitta; the upper surface cinereo-pubescent: species very large . . . . *mellyi*, Boh.
Colour stramineous, testaceous, or ferruginous.
  Prothorax arcuate-emarginate in front.
    Elytra feebly gibbous below the base.
      Each elytron with about eight æneous or cæruleous spots (obsolete in *M. isthmica*, var. β); the prothorax sometimes with a narrow median vitta: species small; male rotundate, female ovate.
        Elytral punctuation coarse; the prothorax with the sides rounded behind . . . . *cæruleonotata*, Boh.
        Elytral punctuation finer; the prothorax with the sides almost straight behind . . . . *isthmica*, n. sp., and vars.
      Each elytron with two broad æneous vittæ, confluent posteriorly; the prothorax with broad median vitta, and a spot on either side of it, æneous . . . . *æneovittata*, n. sp.

Elytra regularly convex; each with two broad vittæ, confluent posteriorly, and the sutural and lateral margins broadly, black: species moderately large; male and female rotundate . . . . *quadrivittata*, [n. sp.

Prothorax very feebly emarginate in front; elytra regularly convex.

Elytra moderately broadly margined: species ovate or oblong.

The prothorax with a small median spot, and the elytra with a !-shaped mark on the outer part of the disc, black . . . . *exclamationis*, [Linn.

The prothorax with a small median black spot, the elytra without a black mark on the outer part of the disc . . . . *evanida*, Boh.

Elytra more broadly margined: male rotundate, female ovate.

The prothorax with a narrow median vitta and the lateral margins posteriorly black.

The elytra with the suture throughout, an uninterrupted line on the outer part of the disc, and the exterior limb at the base, black . . . . *nigrolineata*, n. sp.

The elytra with the suture for a short distance below the base, and an interrupted line on the outer part of the disc, black . . *interrupta*, n. sp.

1. **Mesomphalia punicea.** (Tab. V. figg. 23, ♂, 24, ♀; 25, var. *chevrolati*, ♂; 26, var. *elegans*, ♀.)

Cyrtonota punicea, Chevr., Dej. Cat. 3rd edit. p. 393[1].

Mesomphalia punicea, Boh. Monogr. Cassid. i. p. 287[2], and iv. p. 134[3]; Cat. Col. Ins. Brit. Mus. ix. p. 49[4].

Mesomphalia chevrolati, Boh. Monogr. Cassid. i. p. 285[5], and iv. p. 134[6]; Cat. Col. Ins. Brit. Mus. ix. p. 49[7].

Cassida purpureomaculata, Sturm, in litt.[8]

Hab. Mexico[1–7] (*Sallé, ex coll. Sturm*), Santecomapan, Vera Cruz (*Sallé*), Cordova (*Sallé, Höge*), Misantla (*Höge, F. D. G.*), Atoyac in Vera Cruz, Frontera and Teapa in Tabasco (*H. H. Smith*); British Honduras, Belize, R. Sarstoon, R. Hondo (*Blancaneaux*); Guatemala, Yzabal (*Sallé*), Cubilguitz, Lanquin, Cahabon, Chacoj, Teleman, Panzos, San Juan, and Senahu, all in Vera Paz (*Champion*); Honduras[3] (*Dyson*[4]).

Var. The elytral spots small, the lateral one distant from the shoulder; the punctuation of the elytra finer. (Tab. V. fig. 26, ♀.)

Mesomphalia elegans, Boh. Monogr. Cassid. i. p. 284[9], and iv. p. 134[10]; Cat. Col. Ins. Brit. Mus. ix. p. 49[11].

Hab. Mexico[9–11], Tepansacualco in Oaxaca (*Sallé*), Acapulco and Tapachula (*Höge*); Guatemala (*Sallé*), El Reposo, Zapote (*Champion*); Nicaragua, Chontales (*Belt, Janson*).

M. punicea, in its typical form, is an abundant insect in the forest-region of the Atlantic slope. *M. chevrolati* and *M. elegans*, Boh., the types of which are before me (male of the former, and female of the latter), are varieties of the same species; the first-named has the disc of the elytra more coarsely punctured than usual, and the

posterior spot on each elytron reduced in size; the second has the elytra more finely punctured, and all the spots very small. *M. elegans* is confined to the Pacific slope of Mexico and Guatemala, extending southwards to Nicaragua. The allied *M. tristigma*, Boh., varies in a similar way. *M. chevrolati* is included in Henshaw's 'List of the Coleoptera of America north of Mexico,' p. 14, probably in mistake, as it does not appear to extend north of the Mexican State of Vera Cruz. A remarkable peculiarity about these species is, that the red markings of the elytra are always accompanied by a very much coarser system of punctuation, such not being the case in *M. illustris*, *M. lebasi*, &c. Boheman [9] mentions a variety with the posterior spot on each elytron obsolete; we have not received a specimen of it. We figure a pair of *M. punicea*; also the type (♂) of *M. chevrolati*, and the type (♀) of *M. elegans*, from the Stockholm Museum.

2. **Mesomphalia illustris.** (Tab. V. fig. 22, ♂.)

Cassida illustris, Chevr. Col. Mex., Cent. i. fasc. 3, no. 81 [1].

Mesomphalia illustris, Boh. Monogr. Cassid. i. p. 320 [2], and iv. p. 158 [3]; Cat. Col. Ins. Brit. Mus. ix. p. 57 [4].

Hab. Mexico [3 4], Tuspan (*Chevrolat* [1 2]), Cordova (*Höge*, *Sallé*), Toxpam, Chiapas (*Sallé*), Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*); British Honduras (*Blancaneaux*); Guatemala [4], Coban, Purula, Sabo, and San Juan in Vera Paz, Zapote (*Champion*), Tactic and Tucuru (*Conradt*); Nicaragua, Chontales (*Belt*, *Janson*).

A not uncommon species in Central America. I have not seen a specimen of the var. *a* described by Boheman:—"maculis elytrorum duabus interioribus confluentibus."

3. **Mesomphalia tristigma.** (Tab. V. figg. 27, ♂; 28, ♀, var.)

Mesomphalia tristigma, Boh. Monogr. Cassid. i. p. 286 [1], and iv. p. 134 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 49 [3].

Hab. Mexico [2 3], Orizaba [1], San Andres Tuxtla, Vera Cruz, Oaxaca (*Sallé*), Cordova (*Sallé*, *Höge*), Misantla (*F. D. G.*), Atoyac in Vera Cruz (*H. H. Smith*), Teapa in Tabasco (*Höge*, *H. H. Smith*), Tapachula in Chiapas (*Höge*); British Honduras, R. Hondo, R. Sarstoon (*Blancaneaux*); Guatemala, Coatepeque, Las Mercedes, San Isidro (*Champion*); Honduras [2] (*Dyson* [3]); Nicaragua, Chontales (*Belt*, *Janson*).

A common insect in the Mexican States of Vera Cruz and Tabasco. In Guatemala it has only been found on the Pacific slope. As in *M. punicea*, the spots on the elytra vary greatly in size, frequently becoming coalescent. In one specimen from Tabasco they are exceedingly small, there being two on one elytron and three on the other. *M. tristigma* may be easily known in all its varieties from *M. punicea* by its less gibbous elytra, more angular humeri, and more shining upper surface; the males are also more rounded, and the females more parallel, in shape. The Nicaraguan specimens have the

elytra (the spots excepted) more finely punctured and a little less shining; but they are connected with the others by intermediate forms.

4. **Mesomphalia lebasi.** (Tab. VI. figg. 1, ♂; 2, var. *primaria*, ♀; 3, var. δ, ♀.)

Cyrtonota lebasii, Dej. Cat. 3rd edit. p. 369[1].

Mesomphalia lebasii, Boh. Monogr. Cassid. i. p. 290[2], and iv. p. 134[3]; Cat. Col. Ins. Brit. Mus. ix. p. 50[4].

Mesomphalia primaria, Boh. Monogr. Cassid. i. p. 289[5], and iv. p. 134[6]; Cat. Col. Ins. Brit. Mus. ix. p. 49[7].

This insect is abundant in Mexico and Central America, extending southwards into the northern part of the South-American continent. Several well-marked forms occur, all connected by intermediate gradations:—

α. The elytra each with two transverse or rounded spots placed transversely before the middle; the spots subequal in size, or the inner spot smaller than the outer one. (*M. lebasi*, Boh.)

Hab. Mexico[5–7], Jalapa and Misantla (*Höge*); Guatemala, Cubilguitz, San Juan, Purula and Sabo in Vera Paz (*Champion*); Nicaragua, Chontales (*Belt*, *Janson*); Costa Rica (*Sallé*, *Van Patten*), Caché (*Rogers*); Panama, Chiriqui (*Ribbe*), Bugaba, Volcan de Chiriqui, Caldera, David, Tolé (*Champion*).—Colombia[2–4], Carthagena[1].

β. The elytral spots larger; the inner spot oblong and often much larger than the outer one, the latter transverse. (*M. primaria*, Boh.) (Fig. 2.)

Hab. Mexico, Santecomapan, Toxpam (*Sallé*), Cordova (*Sallé*, *Höge*), Misantla (*Höge*); Guatemala, Cubilguitz in Vera Paz.

γ. The elytral spots coalescent on each elytron.

Hab. Mexico, Cordova and Misantla (*Höge*).

δ. The inner spot on each elytron obsolete, the other usually small or minute. (*M. lebasi*, Boh., var. *a*: Guatemala.) (Fig. 3.)

Hab. Guatemala[3], El Tumbador, Cerro Zunil, Panajachel, Zapote, Dueñas, Escuintla, Guatemala city, San Gerónimo (*Champion*); Nicaragua, Chontales (*Janson*).

The form α (*M. lebasi*) is more southern in its distribution than the form β (*M. primaria*). The form δ is peculiar to Guatemala and Nicaragua; in Guatemala it is confined to the central plateau and the Pacific slope. The forms β and γ are confined to the Atlantic slope, and in Mexico and Guatemala the form α has a similar distribution, the first two being almost peculiar to the Mexican State of Vera Cruz. These three forms all occur at Misantla. From Jalapa we have received a specimen of the form α with the inner spot almost obliterated on one elytron. The form γ closely resembles some of the varieties of *M. salvini*, from which it may be known by the anterior margin of the prothorax not being bordered with testaceous. We figure a

male of the typical form from Chiriqui, a female of the var. *primaria* from Cordova, and a female of the var. δ from Cerro Zunil.

5. Mesomphalia quadrinotata.

Mesomphalia quadrinotata, Boh. Monogr. Cassid. iv. p. 135 [1].

"Rotundata, modice convexa, cærulea, nitida; antennarum articulis 2–4 testaceis; prothorace subtiliter, sat crebre punctulato, ultra medium oblique ampliato, dein rotundato et basin versus angustato; elytris sat crebre, evidenter punctatis, singulo mox ante medium maculis duabus, transversim positis, luteis, interiore ovata, exteriore rotundata, nonnihil majore.—Long. 8½, lat. 7 millim."

Hab. Costa Rica (*Wagner*, *in Mus. Berol.*[1]).

I have not seen a specimen of this species. Boheman[1] states that *M. quadrinotata* resembles *M. lebasi* at first sight; but is smaller, rounder, and more shining, the elytra somewhat coarsely punctured, with the marginal spot larger and nearer to the exterior limb, and the humeri subangular.

6. Mesomphalia costaricensis. (Tab. VI. fig. 4.)

Broadly cordate, moderately convex; greenish æneous, cæruleous, or black; the elytra each with a large rounded sanguineous or fulvous spot on the expanded margin before the middle, extending to the outer limit of the dorsum but not to the lateral margin, and sometimes a minute similarly coloured spot midway between this and the suture; the antennæ black; the under surface and legs cæruleous or greenish-æneous, shining, the former somewhat thickly, the latter sparsely, pubescent; the prothorax and elytra (the suture excepted) opaque, almost smooth (minute scattered punctures are visible under a strong lens), and clothed with very short, scattered semi-erect whitish hairs. Head deeply canaliculate; antennæ rather elongate, extending to far beyond the base of the prothorax, the four basal joints shining, the others opaque. Prothorax twice as broad as long, feebly arcuate-emarginate in front, widest a little behind the middle, the sides thence to the apex rapidly, obliquely converging, straight or slightly converging behind, the base strongly sinuate on either side, and thence to the hind angles nearly straight, the latter subrectangular, the median lobe obtuse and moderately produced; the disc with a smooth, faint median line, the lateral portions concave, the apical and lateral margins slightly reflexed. Scutellum smooth, moderately large. Elytra about three times the length of, and one half wider than, the prothorax, broadly cordate, conjointly rounded at the apex, somewhat obliquely converging behind in the male; the disc feebly and regularly convex, the suture smooth and shining, and a little raised throughout; the margins very broadly expanded, broadly rounded at the shoulders. Beneath sparsely, finely punctured, the ventral segments also transversely aciculate.

Length 11½–12½, breadth 10½–11½ millim.

Hab. Costa Rica (*Van Patten*), Volcan de Irazu 6000 to 7000 feet, Rio Sucio (*Rogers*).

Fifteen specimens. This insect has somewhat the facies of an *Omaspides*. It may easily be known from the similarly coloured two-spotted variety of *M. lebasi* by the almost smooth, very dull upper surface, and by the more concave margins of the prothorax. The males are a little shorter than the females, the shoulders being broadly rounded in both sexes.

7. Mesomphalia xanthospila. (Tab. VI. fig. 5, ♂.)

♂. Subcordate, broad, moderately convex; greenish-æneous, the anterior margins of the prothorax (except in the middle) fulvous; the elytra each with a broad Γ-shaped mark on the middle of the disc at the base,

and a very large subtriangular patch on the disc a little beyond the middle, the latter connected externally with an equally large slightly curved antemedian lateral patch, these markings not reaching the sutural or lateral margins, yellow: antennæ and legs black, the joints 1–3 of the antennæ narrowly fulvous at the tip: beneath black, shining. Head rugosely punctured, opaque, deeply canaliculate; antennæ with the four basal joints shining, the others opaque. Prothorax subopaque, twice as broad as long, deeply arcuate-emarginate in front, the sides rapidly arcuately converging from the base, somewhat obliquely so towards the anterior angles, the base subtruncate on either side, the median lobe obtuse and moderately produced, the disc with a fine, smooth median line, the surface sparsely, very minutely punctured. Scutellum smooth. Elytra more than three times the length of, and one half wider than, the prothorax, broadly subcordate, conjointly rounded at the apex; the disc moderately shining, regularly convex, thickly, finely punctured, the suture a little raised posteriorly, smooth; the margins very broadly expanded anteriorly, more narrowly so posteriorly, somewhat obliquely rounded at the shoulders, the median patch shining, more closely punctured than the disc, the other part opaque, minutely punctured, the exterior limb slightly thickened and reflexed. Beneath subglabrous, almost smooth, shining.

Length 12, breadth 10 millim.

Hab. GUATEMALA, San Juan in Vera Paz (*Champion*).

One example. Exceedingly close to *M. salvini*, but with very different elytral markings, the disc of the elytra a little more uniformly punctured.

8. **Mesomphalia quadriguttata.** (Tab. VI. fig. 6, ♀.)

♀. Broad ovate, moderately convex; greenish-æneous, the anterior margins of the prothorax (except in the middle) fulvous; the elytra each with a large, oval, oblique patch on the disc at the base, and a very broad oblique patch a little before the middle, extending from the middle of the disc almost to the lateral margin, yellow; the antennæ black, joints 2–4 testaceous beneath; legs and under surface bluish-black, the pro- and epipleuræ (the median spot excepted) cæruleous. Head opaque, rugulosely punctured, deeply canaliculate; antennæ with the four basal joints shining, the others opaque. Prothorax opaque, twice as broad as long, rather deeply arcuate-emarginate in front, the sides rapidly arcuately converging from the base, the base subtruncate on either side, the median lobe obtuse and somewhat broadly produced, the disc with a smooth, fine, impressed median line, becoming deeper behind, the surface with very minute, shallow, scattered punctures. Scutellum smooth. Elytra about three and a half times the length of, and at the base not wider than, the prothorax, broad oval, conjointly rounded at the apex; the disc moderately shining to beyond the middle, opaque at the apex, regularly convex, thickly, finely punctured, the punctures a little coarser and more irregular on the light-coloured parts, the suture smooth, not raised posteriorly; the margins moderately expanded, deflexed, obliquely converging anteriorly, widest at about one-fourth from the base, punctured like the disc, opaque, the median patch slightly shining, the exterior limb scarcely thickened. Beneath shining, very sparsely pubescent, almost smooth.

Length 10, breadth 8 millim.

Hab. NICARAGUA, Chontales (*Belt*).

One example. Closely allied to *M. salvini* and *M. xanthospila*, but with different elytral markings; the elytra (♀) much less broadly expanded at the sides, at the base not wider than the base of the prothorax, the margins punctured like the disc.

9. **Mesomphalia salvini.** (Tab. VI. figg. 7, ♂; 8, ♀, var.)

Mesomphalia salvinii, Baly, Trans. Ent. Soc. Lond. 3rd ser. ii. p. 242[1].

Hab. NICARAGUA (*Sallé*), Chontales (*Belt, Janson*); COSTA RICA (*Van Patten*) PANAMA[1], Lion Hill (*M'Leannan*).—COLOMBIA (*coll. Baly*).

I have seen altogether sixteen specimens of this species. The very large, transverse, more or less emarginate, flavous patch on each elytron is sometimes partly, or entirely (as in one specimen from Costa Rica), divided in the middle; it is sometimes marked with one or more small æneous spots (there are three in the type), but these disappear altogether in some examples. The anterior margin of the prothorax is narrowly fulvous on either side, a character separating *M. salvini* from many of the allied forms. We figure the type of the male from Panama, and a variety of the female from Costa Rica.

10. **Mesomphalia pictilis.** (Tab. VI. figg. 9, ♂; 10, 11, ♀, vars.)

Mesomphalia pictilis, Boh. Monogr. Cassid. i. p. 377[1], and iv. p. 176[2]; Cat. Col. Ins. Brit. Mus. ix. p. 64[3].

Hab. Mexico[1-3] (*coll. Baly; Mus. Brit.*), Vera Cruz (*Sallé*).—Colombia[1-3].

I have seen five specimens of the typical form of this species, all from Mexico—two males in the Sallé collection, a female in the Baly collection, and a pair in the British Museum. The description of Boheman[1] was taken from the male sex only; the female is ovate, and much more elongate, with less expanded elytral margins, the male being rotundate, with the margins of the elytra broadly expanded, and abruptly and obliquely converging at the base. The following seem to be nothing more than varieties of the same species, though they all have the elytra much more finely punctured:—

α. ♂. The elytra more finely punctured than in the type; similarly marked, *i. e.* with a very large irregular sanguineous patch on the disc, extending on to the broadly expanded margins before and behind the middle, and enclosing five æneous spots on the disc, placed longitudinally 3, 2, the anterior one of the inner row oblique and larger than the others; the suture æneous throughout.

Hab. Costa Rica (*Van Patten*). One specimen.

β. ♀. The elytra punctured as in α; the markings still larger, occupying the greater part of the surface, leaving only the suture, a common X-shaped mark before the middle, two small obliquely-placed spots on the disc beyond the middle, three lateral patches, and the exterior limb, æneous. (Fig. 10.)

Hab. Panama, Bugaba (*Champion*). One specimen.

γ. ♀. The elytra punctured as in α; each with two rufous spots placed transversely before the middle—the inner one on the middle of the disc, subtriangular or oblique, and in some specimens extending angularly forwards, the outer one rounded externally, partly on the expanded margin,—and a similarly-coloured slightly oblique spot on the outer part of the disc towards the apex, and sometimes with a small rufous streak midway between the two discal spots. (Fig. 11.)

Hab. Nicaragua, Chontales (*Janson*); Panama, Bugaba, Volcan de Chiriqui (*Champion*). Five specimens.

The var. γ looks perfectly distinct, at first sight, but the difference is more apparent than real. The red markings, as in *M. punicea* and *M. tristigma*, are accompanied by

a coarser system of punctuation, and when they are reduced to small spots the punctuation is much finer. A precisely similar variation is to be found between the extreme forms of *M. tristigma.*

We figure a typical male from Vera Cruz; also a female of the var. β, and a female of the var. γ, both from Bugaba.

11. **Mesomphalia mellyi.**

Mesomphalia mellyi, Boh. Monogr. Cassid. i. p. 314[1], and iv. p. 151[2]; Cat. Col. Ins. Brit. Mus. ix. p. 56[3].

"Subrotundata, minus convexa, nigra, opaca, pube cinerea parce adspersa; prothorace inæquali, subtiliter, subremote punctulato, medio tenuiter canaliculato; elytris dorso foveis magnis, sat crebris, fundo lævibus, interstitiis angustis, elevatis, nitidis, punctulatis; singulo elytro vitta lata, laterali, flava, nigro-maculata, introrsum sinuata.—Long. 21, lat. 18 millim."

Hab. Mexico (*coll. Melly* [1–3]).

Unknown to me. The locality requires confirmation.

12. **Mesomphalia cæruleonotata.**

Mesomphalia cæruleonotata, Boh. Monogr. Cassid. i. p. 376[1], and iv. p. 176[2]; Cat. Col. Ins. Brit. Mus. ix. p. 64[3].

"Rotundata (♂) aut ovata (♀), convexa, testacea, subopaca; prothorace subtilissime, crebre punctulato, medio linea brevi, longitudinali, cærulea, lateribus late, sensim rotundato-ampliato; elytris profunde sat crebre punctatis, sutura antice, singulo maculis octo minoribus, inæqualibus, viridi-cæruleis; margine modice explanato, deflexo.—Long. ♂ 7½, lat. 6⅔; long. ♀ 9, lat. 7 millim."

Hab. Mexico (*Chevrolat* [1–3]).

The only specimen (♀) I have seen of this species is contained in the British Museum.

13. **Mesomphalia isthmica.** (Tab. VI. figg. 12, ♂, 13, ♀; 14, ♂, var.)

Rotundate (♂), or ovate (♀), rather convex, moderately shining; testaceous or ferruginous, the prothorax sometimes with a narrow æneous median vitta extending from the base to the apex; the scutellum æneous; the elytra each with from 7 to 9 irregular spots—three placed longitudinally on the disc, equidistant, the anterior one oblique, four on the outer part of the disc, the anterior one occupying the humeral callus and sometimes divided into two, the posterior one sometimes obsolete, and one, the largest, on the expanded margin about the middle,—and the suture anteriorly, to a greater or less extent, æneous or cæruleous; the antennæ black, the four basal joints testaceous beneath; the legs and under surface black. Head deeply canaliculate, rugulosely punctured; antennæ rather stout, extending a little beyond the base of the prothorax, the four basal joints shining, the others opaque. Prothorax twice as broad as long, deeply arcuate-emarginate in front, the sides straight or very slightly rounded behind, rapidly and obliquely converging from the middle to the apex, the base subtruncate on either side, the median lobe obtuse and moderately produced; the disc sparsely, very finely punctate, and with a fine, impressed median line (which is sometimes more deeply impressed at the base and apex); the margins dull, almost smooth, in some specimens foveate about the middle. Scutellum smooth. Elytra short and strongly rounded at the sides (♂), longer and more ovate (♀), a little wider than the prothorax at the base, in the widest part (♂) about one half wider than it, conjointly rounded at the apex; the disc moderately gibbous before the middle; the margins (♂) broadly, (♀) moderately expanded, deflexed, obliquely converging in

front; the entire surface (the suture excepted) thickly, moderately coarsely, almost uniformly punctured. Beneath subglabrous, almost smooth.

Length, ♂, 7½, breadth 6½ millim.; ♀, length 9¼, breadth 7⅓ millim.

Hab. COSTA RICA (*Van Patten*).

Four examples, two of each sex.

a. The elytra marked as in the type; the under surface obscure ferruginous; the basal joints of the antennæ above and beneath and the legs testaceous.

Hab. PANAMA, Bugaba (*Champion*). Two male specimens.

β. The elytra immaculate, flavo-testaceous, testaceous, or ferruginous, the suture usually more or less infuscate anteriorly; the prothorax sometimes with a narrow median vitta; the under surface and legs varying in colour from black to testaceous. (Fig. 14.)

Length, ♂, 7–7½, breadth 6–6½ millim.; ♀, length 8½–9½, breadth 6½–7½ millim.

Hab. COSTA RICA (*Rogers, Van Patten*); PANAMA, Bugaba, Volcan de Chiriqui (*Champion*), Panama city (*Conradt*). Twelve examples, including both sexes.

This insect is very closely allied to *M. cæruleonotata*, and it is perhaps not really distinct from that species (of which I have only seen a single example); but the punctuation of the elytra is very much finer, and the prothorax has the sides straighter behind. The spotted and the immaculate forms have been received from the same localities, and I do not hesitate to put them together; the latter closely resembles *M. suturalis*, Boh., from Cayenne, but it has the elytra more uniformly punctured. The colour of the under surface and legs is variable. *M. varians*, Boh., from Cayenne &c., is an allied form, specimens of which occur with the elytral spots almost obliterated. We figure a pair of the typical form from Costa Rica, and a male of the unspotted variety from Bugaba.

14. **Mesomphalia æneovittata.** (Tab. VI. fig. 15, ♂.)

♂. Rotundate, moderately convex, slightly shining; the head and prothorax testaceous, the latter with a broad median vitta extending from the base to the apex and narrowing anteriorly, and an oblong patch midway between this and the lateral margin, æneous, the margins a little more dilute and dotted with fuscous; the scutellum æneous; the elytra flavo-testaceous, each with two broad æneous vittæ, which become confluent posteriorly—the inner one constricted before the middle and not reaching the base, the outer one sinuous, occupying a considerable portion of the expanded margin, and extending over the humeral callus to the base,—and the suture nearly to the apex—broadly anteriorly, narrowly behind—æneous; the antennæ black, with the three basal joints, and the fourth and fifth beneath, testaceous; the legs testaceous; the underside black. Head deeply canaliculate, rugulosely punctured; antennæ rather stout, extending a little beyond the base of the prothorax, the four basal joints shining, the others opaque. Prothorax twice as broad as long, rather feebly arcuate-emarginate in front, the sides rapidly arcuately converging from the base, obliquely so anteriorly, the base truncate on either side, the median lobe obtuse and moderately produced; the disc sparsely, very finely punctate, depressed in the middle behind, and with a very fine median line, which is deeply impressed at the base; the margins dull, almost smooth, rather concave, deeply foveate behind the middle. Scutellum smooth, moderately large. Elytra more than three times the length of, and in the widest part about one half broader than, the prothorax, at the base scarcely broader than it, conjointly rounded at the apex; the disc moderately gibbous before the middle; the margins broadly expanded, deflexed, rounded and widest before the

middle, obliquely, abruptly converging in front; the entire surface (the suture excepted) thickly, rather coarsely, almost uniformly punctured. Beneath subglabrous, almost smooth.

Length 7½, breadth 6½ millim.

Hab. NICARAGUA, Chontales (*Janson*).

One specimen. Closely allied to *M. cæruleonotata* and *M. isthmica*, but differently coloured and with the prothorax less deeply emarginate in front. The type is contained in the collection of Mr. O. E. Janson.

15. **Mesomphalia quadrivittata.** (Tab. VI. fig. 16, ♂.)

Rotundate (♂), more ovate, and a little less obtuse behind (♀), convex, slightly shining; the head and prothorax testaceous or rufo-testaceous, the latter with the basal edge very narrowly black; the scutellum black; the elytra flavous or flavo-testaceous, with two broad vittæ on the disc, extending from the base nearly to the apex and becoming coalescent behind, and the suture and lateral margins rather broadly, black; the antennæ black, with the four basal joints more or less testaceous; the femora and tibiæ testaceous, sometimes in great part piceous, the tarsi black; the under surface (the margins of the epipleuræ excepted) testaceous, the breast and abdomen sometimes largely piceous. Head deeply grooved in the middle; antennæ extending to a little beyond the base of the prothorax, the four basal joints shining and almost smooth, the others densely punctured and opaque. Prothorax twice as broad as long, broadly and rather deeply arcuate-emarginate in front, the sides rapidly, arcuately converging from the base, obliquely so in front, the base strongly sinuate on either side, the hind angles rather obtuse, the median lobe broad and obtuse, moderately produced; the disc somewhat convex, a little flattened in front, with a fine, interrupted median groove; the margins moderately concave; the entire surface sparsely, finely punctured, the punctures coarser at the sides. Scutellum moderately large, smooth. Elytra (♂) one-half broader than, and about three and a half times as long as, the prothorax, conjointly rounded at the apex, slightly longer, and with the sutural angles a little sharper in the female, rounded at the sides in both sexes, the base strongly bisinuate, the humeri rounded, rather prominent in front; the disc regularly rounded: the margins broadly expanded (♂), moderately expanded and somewhat deflexed (♀), the exterior limb narrowly reflexed, strongly so at the base; the entire surface thickly, rather coarsely punctate. Beneath glabrous, almost smooth, the epipleuræ punctured as above. Claws obtusely appendiculate.

Length, ♂ ♀, 9½–11, breadth 8¼–9 millim.

Hab. NICARAGUA, Rio San Juan (*Janson*); COSTA RICA (*Gabb*).

Three specimens, all contained in Mr. O. E. Janson's collection. This species has much the facies of a *Pœcilaspis*, resembling *M. pœcilaspoides*, Baly, in shape, but it differs from that genus in its more deeply emarginate prothorax, the antennæ with the four basal joints only smooth, &c.; the non-produced hind angles of the prothorax separate it from *Chelymorpha*. *M. quadrivittata* is not closely allied to any species known to me. The Costa Rican specimen is figured.

16. **Mesomphalia exclamationis.**

Cassida exclamationis, Linn. Syst. Nat. 12th edit. i. 2, p. 577 [1]; Fabr. Syst. Eleuth. i. p. 406 [2]; Herbst, Käfer, viii. p. 253, t. 131. fig. 8 [3]; Oliv. Ent. vi. no. 97, p. 947, t. 1. fig. 16 [4].

Mesomphalia exclamationis, Boh. Monogr. Cassid. i. p. 379 [5], and iv. p. 176 [6]; Cat. Col. Ins. Brit. Mus. ix. p. 64 [7].

Hab. MEXICO, San Blas (*Forrer*), Acapulco (*Höge*), San Andres Tuxtla, El Camaron

(*Sallé*), Temax in North Yucatan (*Gaumer*); GUATEMALA, Cerro Zunil, Zapote (*Champion*); NICARAGUA, Chontales (*Janson*).—SOUTH AMERICA [2], Guiana [4–7], Trinidad, Brazil [5–7]; ANTILLES [4], Martinique [7].

Not hitherto recorded from Mexico or Central America.

17. Mesomphalia evanida.

Mesomphalia evanida, Boh. Monogr. Cassid. i. p. 381 [1], and iv. p. 177 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 65 [3].

Hab. MEXICO (*Truqui, in Mus. Brit.*).—COLOMBIA [1–3].

There are two specimens of this species in the British Museum labelled as from Mexico. *M. evanida* is exceedingly closely allied to *M. exclamationis*, and it is probably nothing more than a variety of that insect.

18. Mesomphalia nigrolineata. (Tab. VI. fig. 17, ♂.)

Rotundate (♂), broad ovate (♀), moderately convex, shining, flavo-testaceous or stramineous; the prothorax with a narrow median vitta extending from the base to the apex, and the lateral margins from a little before the middle to the base, black; the scutellum black; the elytra with the suture from the base to the apex narrowly, a narrow stripe on the outer part of the disc extending from the base nearly to the apex (bent inwards and a little widened at the base), and the exterior limb to beyond the middle (♂), or to about one-third from the base (♀), very narrowly, black; the antennæ black, the four basal joints testaceous, 2–4 infuscate above; the under surface and legs pale testaceous, the tibiæ on their outer edge and the tarsi black. Head deeply canaliculate, not visible from above; antennæ rather slender, the four basal joints shining, the others densely punctured and opaque. Prothorax twice as broad as long, very feebly emarginate in front (the apex subtruncate, if viewed from above), the sides slightly rounded in their basal third and thence rapidly and obliquely converging to the apex, the anterior angles obliterated, the base feebly sinuate on either side, subtruncate outwardly, the hind angles rather sharp, the median lobe obtuse and moderately produced, the disc transversely depressed in the middle behind and with a faint median groove, the margins concave, the apex raised; the surface almost smooth, the sides only with distinct punctures. Scutellum smooth. Elytra about one-half broader than the prothorax, at the base not much wider than it, conjointly rounded at the apex, the base moderately sinuate, the humeri rounded and not prominent; the disc regularly convex; the margins broadly expanded in the ♂, moderately expanded in the ♀, deflexed, broadly rounded anteriorly; the entire surface thickly, finely punctate. Beneath smooth, glabrous. Claws appendiculate.

Length, ♂, 9, breadth 8 millim.: ♀, length 12½, breadth 9¾ millim.

Hab. COSTA RICA (*coll. Janson*); PANAMA, Volcan de Chiriqui 4000 feet (*Champion*).

One specimen from each locality; the male, from Costa Rica, is figured. This species approaches *M. albida*, *M. exclamationis*, &c.; but it has the margins of the elytra more broadly expanded, especially in the male.

19. Mesomphalia interrupta. (Tab. VI. fig. 18, ♀.)

Rotundate (♂), rather broad ovate (♀), moderately convex, shining, dilute stramineous; the prothorax with a median vitta extending from the base to the apex, usually a little widened in front, and the lateral margins narrowly from about the middle to the base, black; the scutellum black; the elytra with the suture for a short distance immediately below the base, narrowly, a short slightly curved, oblique streak on the humeral callus (extending to the base), and a fine longitudinal streak of variable length on the

outer part of the disc (in a line with the end of the humeral mark and sometimes extending to about one-third from the apex), black; antennæ black, the five basal joints pale testaceous, 2–5 more or less stained with piceous above; the under surface and legs pale testaceous, the tibiæ on their outer edge and the tarsi black. Head, antennæ, prothorax, scutellum, and elytra as in *M. nigrolineata*, the prothorax with very minute scattered punctures at the sides, the apex as viewed from above truncate.

Length, ♂, $8\frac{1}{4}$–9, breadth $7\frac{1}{2}$–$8\frac{1}{2}$ millim.; ♀, length $9\frac{3}{4}$–$10\frac{3}{4}$, breadth 8–$8\frac{1}{2}$ millim.

Hab. COSTA RICA, Caché (*Rogers*).

Three males and two females. Closely allied to, and probably only a variety of, *M. nigrolineata*, from which it differs in having the suture black for a short distance below the scutellum only (the black not quite reaching the base), the fine black streak on the outer part of the disc of each elytron abbreviated and interrupted, and the elytral margins not bordered with black.

CHELYMORPHA.

Chelymorpha (Chevrolat), Dej. Cat. 3rd edit. p. 393 (1837); Boheman, Monogr. Cassid. ii. p. 1 (1854) (partim).

Cyphomorpha, Hope, Col. Man. iii. p. 160 (1840).

This genus is readily recognizable by the base of the prothorax being so deeply emarginate on either side externally as to make the hind angles, which are acute or sharp, appear as if they were produced behind, the prothorax being also emarginate to a greater or less extent in front. Amongst other characters given by Boheman are "the prosternum deeply, longitudinally canaliculate," and "the claws unidentate at the base beneath." Three of his species, *C. punctipennis*, *C. apiata*, and *C. obducta*, all from S. America, do not possess these peculiarities, nor have they the prothorax emarginate in front; and I propose to separate them under the name *Cistudinella*, including in the same genus an allied species from the State of Panama, which is dealt with below. Upwards of one hundred species of *Chelymorpha* have been described, all American, ranging from the United States to Patagonia and occurring also in the Antilles; twenty-four are here recorded from within our limits as against two from the United States. The genus is one of the most characteristic of the Central-American Cassididæ; *C. juvenca* and its allies bear a remarkable resemblance to some of the species of *Epilachna* of the family Coccinellidæ inhabiting the same region. The following Table is added to assist in the identification of the Central-American species, but it must be remembered that some of them are very variable in colour.

Elytra strongly gibbous anteriorly, the suture usually more or less raised below the base, so as to form a hump; upper surface thickly pubescent.
- Species large, very coarsely punctured above . . . . *höpfneri*, Boh.
- Species smaller, more finely punctured above.
  - Elytra with several distinct spots, including a common sutural one . . . *pubescens*, Boh., [*gressoria*, Boh.
  - Elytra immaculate or nearly so . . . . *sericea*, Boh.

Elytra moderately or feebly gibbous anteriorly, the suture not raised below the base into a hump.

Upper surface pubescent; elytra spotted . . . . *comata*, Boh., and [vars.

Upper surface glabrous.

Elytra rufo-testaceous, immaculate; prothorax black (except at the apex) . . . . *rufipennis*, Boh.

Elytra rufo-testaceous, each with two broad yellow vittæ and numerous irregular rows of small black spots . . . . *alternans*, Boh.

Elytra flavo-testaceous, each with two very broad black vittæ, the inner one not obliquely truncate anteriorly . . . . *vittata*, n. sp.

Elytra testaceous, each with two moderately broad black vittæ, the inner one obliquely truncate anteriorly . . . . *militaris*, Boh.

Elytra rufo-testaceous, each with eight small greenish-blue spots, 2, 3, 1, 2. *calva*, Boh.*

Elytra regularly convex, not at all gibbous anteriorly.

Upper surface pubescent.

Species moderately convex; rufo-testaceous, the elytra spotted.

Prothorax rugosely punctured . . . . *rugicollis*, n. sp.

Prothorax very finely punctured . . . . *catenulata*, Boh.

Species strongly convex (resembling *Epilachna*); elytra black, with exceedingly large yellow spots or patches . . . . *juvenca*, Boh., [*crux-nigra*, Boh.

Upper surface glabrous.

Species moderately convex; ♂ subrotundate or ovate, ♀ ovate or oblong.

Size large; upper surface rufo-testaceous or testaceous, with black spots or markings.

Elytra with small spots, 2, 3, 2, or 2, 3, 1, and a common sutural one, the median three not forming a fascia . . . . *mexicana*, n. sp.

Elytra usually with a well-defined median fascia and some spots and lines, enclosing exceedingly large yellow patches . . . . . *biannularis*, Boh., [and vars.

Size smaller; upper surface rufo-testaceous or testaceous, with black spots.

Elytra with large or moderately large black spots.

Elytral punctuation rather fine; usually two spots on the disc beyond the middle † (at most six on each elytron) . . . . 14-*punctata*, Boh., [and vars.

Elytral punctuation coarse; one spot only on the disc beyond the middle (five in all on each elytron) . . . . 13-*maculata*, Boh.

Elytra with smaller and fewer spots; one at most on the disc beyond the middle † (usually five on each elytron) . . . . 12-*signata*, Boh.

Species more convex (resembling *Epilachna*); size large.

Upper surface black.

Prothorax and elytra with large rufo-testaceous or yellow spots.

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* Boheman compares this species with *C. pubescens*; it is perhaps incorrectly placed here.

† Sometimes obsolete.

Elytral spots subequal in size . . . . *guttifera*, Boh.
Elytral spots unequal, the apical one exceedingly large or >-shaped. *flavomaculata*, n. sp.
Prothorax black (except at the apex).
Elytra with large yellow spots . . . . 10-*stillata*, Boh.
Elytra with very large yellow patches, separated by narrow black spaces . . . . *epilachnoides*, n. sp.
Upper surface rufo-testaceous, the margins of the prothorax and elytra narrowly black . . . . *obliterata*, n. sp.

1. **Chelymorpha höpfneri.** (Tab. VI. fig. 19, ♀.)

Chelymorpha höpfneri, Boh. Monogr. Cassid. ii. p. 2[1], and iv. p. 194[2]; Cat. Col. Ins. Brit. Mus. ix. p. 73[3].

Hab. MEXICO [1–3], Puebla (*Sallé*), Matamoros Izucar, Cuernavaca (*Höge*).

Apparently a scarce insect, and confined to a limited district in Mexico. *C. höpfneri* is larger, broader, and more coarsely punctured than the allied *C. pubescens* and *C. gressoria*; it closely resembles the var. β of *C. gressoria*.

2. **Chelymorpha pubescens.** (Tab. VI. fig. 20, ♀.)

Chelymorpha pubescens, Boh. Monogr. Cassid. ii. p. 5[1], and iv. p. 195[2]; Cat. Col. Ins. Brit. Mus. ix. p. 73[3].

Hab. MEXICO [1–3], Ventanas in Durango (*Forrer*), Tierra Colorada and Rincon in Guerrero (*H. H. Smith*), Matamoros Izucar (*Höge*), Playa Vicente, Orizaba, Vera Cruz (*Sallé*), Cordova (*Sallé*, *Höge*), Teapa (*Höge*, *H. H. Smith*), Tapachula in Chiapas (*Höge*), Temax in North Yucatan (*Gaumer*); BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); GUATEMALA, Cahabon, Chiacam, and Chacoj in Vera Paz, El Tumbador, Coatepeque, Paraiso, El Reposo, Volcan de Atitlan, Pantaleon, Mirandilla, Zapote (*Champion*).

A common insect in Mexico and Guatemala. A variety occurs with the median discoidal spot small or obsolete, and the other spots much reduced in size. In the typical form the elytra have an oblong black mark midway between the humeral spot and the suture; but this patch is sometimes represented by one or two rounded spots. The lateral margins of the prothorax show no tendency to become black. Specimens from Matamoros Izucar, Teapa, and Temax have the elytra less gibbous than in typical *C. gressoria*, those from Cordova, Tapachula, and Zapote being almost intermediate. We figure a female specimen from Cordova, determined by Boheman himself.

3. **Chelymorpha gressoria.** (Tab. VI. fig. 21, ♂.)

Chelymorpha gressoria, Boh. Monogr. Cassid. iv. p. 194[1].

Hab. MEXICO, Juquila (*Sallé* [1]), Cordova, Tapachula (*Höge*); GUATEMALA, El Tum-

bador, Coatepeque, El Reposo, Las Mercedes, Zapote, Capetillo (*Champion*); Panama, Bugaba, Volcan de Chiriqui (*Champion*).

Var. a. The prothorax usually with the sides, the base and apex in the middle, and two transversely placed spots on the disc, black; the elytra with a common, ovate, rather large spot on the suture below the base, a small spot on the humeral callus, and sometimes one or two other small spots on the disc or margin, black, the exterior limb also more or less infuscate or black; the legs entirely black.

Hab. Costa Rica (*Van Patten*), Caché (*Rogers*); Panama, Volcan de Chiriqui (*Champion*).

Var. β. The sides and apex, and sometimes also the base, of the prothorax and the exterior limb of the elytra rufo-testaceous; the legs partly or entirely black.

Hab. Mexico, Tapachula (*Höge*); Guatemala, El Reposo, San Gerónimo, El Jicaro (*Champion*); Nicaragua, Chontales (*Janson, Belt*); Panama, Volcan de Chiriqui, David (*Champion*).

It is with some hesitation that I retain *C. gressoria* as distinct from *C. pubescens*; but as the elytra appear to be more gibbous, and the insect is constant in some localities, though occurring with *C. pubescens* in others, it is perhaps advisable to keep them separate. The sutural callosity of the elytra is larger and more rounded than in *C. pubescens*, and the spots between the humeral callus and the suture show no tendency to become confluent, so as to form an oblong patch. The prothorax, the anterior margin and a small oblong spot on the disc excepted, and the legs are sometimes black. The colour of the prothorax is very variable. *C. gressoria* has been collected rather abundantly at Las Mercedes in Guatemala, and at various places in Chiriqui, unaccompanied by *C. pubescens*, which apparently does not extend south of Guatemala. We figure one of Boheman's types from Juquila, a male.

4. Chelymorpha sericea. (Tab. VI. fig. 22, ♂.)

Chelymorpha sericea, Boh. Monogr. Cassid. iv. p. 195 [1].

Hab. Guatemala (*coll. Baly* [1]); Nicaragua, Chontales (*Belt*); Costa Rica (*Sallé*).

I have seen only four specimens of this species, including the types in the Baly collection. Three of these belong to the variety with immaculate elytra. We figure Boheman's type.

5. Chelymorpha comata. (Tab. VI. figg. 23, ♀; 24, 25, ♂, vars.)

Chelymorpha comata, Boh. Monogr. Cassid. ii. p. 4 [1], and iv. p. 194 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 73 [3].

Chelymorpha 17-notata, Boh. Monogr. Cassid. iv. p. 202 [4].

Chelymorpha 13-punctata, Sturm in litt. [5]

Hab. Mexico [1–3] (*Sallé, ex coll. Sturm*), Playa Vicente, Tuxtla, Cordova, Vera Cruz [4]

(*Sallé*), Misantla (*Höge, F. D. G.*), Jalapa, Teapa in Tabasco (*Höge*), Atoyac in Vera Cruz (*H. H. Smith*); BRITISH HONDURAS, Rio Hondo, Belize (*Blancaneaux*); GUATEMALA, Chiacam in Vera Paz (*Champion*).

Var. The second discoidal spot and the two outer median ones coalescent, so as to form an irregular fascia on each elytron; the first and second discoidal spots often united with the sutural one, forming a common X-shaped patch. (Fig. 25.)

Chelymorpha smithi, Boh. Cat. Col. Ins. Brit. Mus. ix. p. 77 [6]; Monogr. Cassid. iv. p. 200 [7].

Hab. MEXICO, Teapa in Tabasco (*Sallé* [7], *Höge, H. H. Smith*); BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); GUATEMALA, Panzos in Vera Paz (*Conradt*), Chiacam in Vera Paz (*Champion*); HONDURAS (*Dyson, in mus. Brit.* [6 7]).

This species is confined to the Atlantic slope. With the type of *C. 17-notata*, Boh., before me, I am unable to separate it from *C. comata*, even as a variety; it merely differs from *C. comata* in having the elytral spots larger, the common sutural patch sometimes continued downwards and coalescent on either side with the second discoidal spot. *C. smithi* is a local variety, not uncommon in Tabasco, where also the var. *17-notata* occurs; these two forms were also collected together at Rio Hondo and Chiacam. Boheman [7] compares *C. smithi* with *C. catenulata*; the latter, however, has the elytra much flatter, not at all gibbous below the base. We figure a variety (♀) from Vera Cruz; one of Boheman's types (♂) of *C. 17-notata*, from Playa Vicente, and one (♂) of his *C. smithi* from Teapa.

6. **Chelymorpha rufipennis.** (Tab. VII. fig. 1, ♀.)

Chelymorpha rufipennis, Boh. Monogr. Cassid. ii. p. 77 [1], and iv. p. 216 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 83 [3].

Hab. PANAMA, Chiriqui (*Ribbe*), David, Tolé (*Champion*), Matachin (*Thième*).—COLOMBIA; VENEZUELA [2 3]; BRAZIL [1–3].

A species readily recognizable by its rufo-testaceous or rufous elytra and black prothorax, the latter with the anterior margin, and sometimes a narrow streak on the disc, rufo-testaceous.

7. **Chelymorpha alternans.** (Tab. VII. fig. 2, ♂.)

Chelymorpha alternans, Boh. Monogr. Cassid. ii. p. 33 [1], and iv. p. 200 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 76 [3].

Hab. COSTA RICA, Caché (*Rogers*); PANAMA, Bugaba, Volcan de Chiriqui, Tolé (*Champion*).—COLOMBIA [1–3]; AMAZONS, Pará [2 3], Santarem [2 3].

Not uncommon in Chiriqui. All our specimens, and also those named by Boheman in the National Collection, have a small black spot on either side of the disc of the prothorax about the middle. Some examples have a broad indeterminate flavous

median vitta on the prothorax; the two flavous vittæ on each elytron are sometimes indistinct from discoloration. *C. bullata*, Boh., from Brazil, appears to be a closely allied species, but has more gibbous elytra.

8. **Chelymorpha vittata.** (Tab. VII. fig. 3, ♀.)

♀. Ovate, rather broad, somewhat gibbous, slightly shining, glabrous; the head, prothorax, and scutellum testaceous, the prothorax with a very large subtriangular black patch on either side of the disc; the elytra flavo-testaceous, each with two very broad black vittæ extending almost from the base to near the apex—one near the suture, narrowed and a little abbreviated posteriorly, the other on the outer part of the disc, narrowed anteriorly and posteriorly, and extending behind the other to near the suture; the antennæ and legs rufo-testaceous, the apical four joints of the antennæ infuscate; the under surface black, the prosternum rufo-testaceous. Head canaliculate between the eyes, the lower part with scattered rather coarse punctures; antennæ about reaching the base of the prothorax, the five basal joints shining and almost smooth. Prothorax more than twice as broad as long, deeply arcuate-emarginate in front, the sides a little rounded behind, obliquely and more rapidly converging from the middle forwards, the base bisinuate on either side, the median lobe broad and obtuse, the hind angles a little produced behind; the disc with a fine median groove not extending to the apex, sparsely, very finely punctate; the margins moderately expanded, almost smooth, the outer edge slightly reflexed. Scutellum smooth. Elytra somewhat gibbous anteriorly, about four times as long as, and at the base a little wider than, the prothorax, widest at one-third from the base, the sides thence to the humeri obliquely converging, the humeri obtuse and embraced by the hind angles of the prothorax, the apices conjointly rounded; the disc very convex anteriorly, rather abruptly declivous from about the basal third; the margins moderately expanded and deflexed; the entire surface, the sutural region excepted, coarsely, thickly punctate. Beneath glabrous, smooth, the metapleuræ rugose; the prosternum very deeply sulcate for its entire length. Claws appendiculate.

Length 10, breadth 7 millim.

Hab. Nicaragua, Chontales (*Janson*).

One specimen, contained in Mr. O. E. Janson's collection. Allied to *C. alternans*, *C. rufipennis*, &c., but easily separable from these by the very broad black vittæ of the elytra. *C. vittata* agrees very nearly with the description of *C. militaris*, Boh.; but it has much broader and differently formed elytral vittæ, the elytra themselves more coarsely punctured, and, apparently, the hind angles of the prothorax less acuminate. The vittæ in *C. vittata* are nearly twice as broad as the intervening spaces of the ground-colour.

9. **Chelymorpha militaris.**

Chelymorpha militaris, Boh. Monogr. Cassid. iv. p. 204[1].

"Ovata, convexa, testacea, nitida; antennis extrorsum corporeque subtus nigris; prothorace sat crebre, subtiliter punctulato, utrinque macula magna, subtriangulari, nigra ornato, dorso postico longitudinaliter, tenuiter canaliculato; elytris sat profunde, minus crebre punctatis, singulo vittis duabus sat latis, nigris ornato.—Long. 10, lat. 7¼ millim."

Hab. Central America (*Mus. Berol.*[1]).

Unknown to me. *C. militaris* is compared by Boheman with, and placed next to, the North-American *C. argus* (Herbst). The elytral vittæ are described as "sat latis,

parallelis, nigris, utrinque nonnihil abbreviatis, una prope suturam antice introrsum oblique truncata, apicem versus attenuata, altera in disco exteriore, antice minus, postice magis attenuata."

10. Chelymorpha calva.

Chelymorpha calva, Boh. Monogr. Cassid. ii. p. 30[1], and iv. p. 200[2]; Cat. Col. Ins. Brit. Mus. ix. p. 76[3].

"Subrotundata, convexa, rufo-testacea, parum nitida, glabra; prothorace obsolete, subremote punctulato, immaculato; elytris sat profunde, crebre, vage punctatis, singulo maculis 8 parvis, viridi-cærulescentibus. —Long. 8, lat. 7 millim."

Hab. Mexico (*Mus. Paris* [1–3]).

I have not seen a *Chelymorpha* agreeing with the description of this species. The spots on each elytron are arranged 2, 3, 1, 2.

11. Chelymorpha rugicollis. (Tab. VII. fig. 4, ♀.)

♀. Oblong ovate, moderately convex, slightly shining, somewhat thickly pubescent; rufo-testaceous, the eyes, six spots on the prothorax—four, equidistant, in a transverse line across the middle (the two on the disc larger than the others), and two on the disc at the base, the latter small and faint,—and the scutellum, black; the elytra each with seven large rounded spots—three placed one behind the other on the disc towards the suture (the first at the base, the second just behind and almost confluent with it, the third about the middle, the latter larger than the others and nearer the suture), three on the outer part of the disc (the first on the humeral callus, the second a little before the middle, and the third not far from the apex, the latter the largest), and one on the margin a little beyond the middle,—and a common, large, oblong patch on the suture below the base, black; the antennæ (joints 3–11 broken off) and legs rufo-testaceous; the under surface black, the ventral segments 3–5 each with a reddish transverse mark at the sides. Head rugosely punctured and canaliculate between the eyes, the lower part with coarse, separate punctures; (antennæ mutilated). Prothorax nearly twice as broad as long, moderately convex, broadly arcuate-emarginate in front, the sides rapidly converging from the base forwards—a little rounded behind, obliquely converging in front,—the base deeply bisinuate on either side, the median lobe strongly, subtriangularly produced, the hind angles sharply produced behind; the disc with an abbreviated distinct median groove; the apical and lateral margins strongly thickened and reflexed, concave within; the entire surface coarsely, confluently punctured. Elytra regularly and moderately convex, about three times as long as the prothorax, and at the base a little wider than it, widest at the middle, the sides thence to the base sinuously converging, very obtuse behind, the humeri obtuse and embraced by the hind angles of the prothorax; the margins narrowly expanded, with the outer edge thickened and slightly reflexed; the surface coarsely, thickly punctate, the spots smoother. Beneath very sparsely, finely punctate, sparsely pubescent; prosternum very deeply sulcate. Claws appendiculate.

Length 11, breadth 7½ millim.

Hab. Mexico, Michoacan (*Sallé*).

One example. This very distinct species resembles *C. comata*, Boh., but is in reality more nearly allied to the North-American *C. argus* (Herbst). The elytra are not at all gibbous below the base, this character separating it at once from *C. comata* and its allies. The pubescent, duller surface, coarser punctuation, &c., distinguish it from *C. argus*, *C. mexicana*, &c. The prothorax is coarsely, confluently punctured.

12. **Chelymorpha catenulata.** (Tab. VII. figg. 5, ♂; 6, 7, ♀, vars.)

Chelymorpha catenulata, Boh. Monogr. Cassid. ii. p. 35 [1], and iv. p. 200 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 77 [3].

Chelymorpha 11-maculata, Boh. Monogr. Cassid. ii. p. 37 [4], and iv. p. 203 [5]; Cat. Col. Ins. Brit. Mus. ix. p. 77 [6].

Chelymorpha 8-maculata, Sturm in litt. [7]

Hab. Mexico [1–6] (*Sallé, ex coll. Sturm*), Cuernavaca (*Sallé, Höge, H. H. Smith*), Tepetlapa (*H. H. Smith*), Matamoros Izucar, Chilpancingo, Misantla (*Höge*), Playa Vicente (*Sallé*), Oaxaca (*Höge*); Guatemala, Cerro Zunil, Volcan de Atitlan, Pantaleon, Dueñas, Capetillo (*Champion*); Panama, Volcan de Chiriqui (*Champion*).—Brazil [1].

Var. *a*. The elytra with the suture and the exterior limb rather broadly black; the spots large, the inner discoidal spot extending to the suture, the outer one to the margin. (Fig. 7.)

Hab. Guatemala, Capetillo (*Champion*). One specimen.

Var. *β*. The elytra entirely black.

Chelymorpha 11-maculata, Boh., var. *c*, Monogr. Cassid. iv. p. 203 [8]; Cat. Col. Ins. Brit. Mus. ix. p. 77 [9].

Chelymorpha omissa, Dohrn, Stett. ent. Zeit. 1880, p. 155 [10].

Hab. Mexico [8 9], Ventanas in Durango (*Forrer*); Guatemala [10], Capetillo (*Champion, Rodriguez*), Dueñas (*Champion*).

I have examined the types of *C. catenulata* and *C. 11-maculata*, and they only differ in colour and size. The species is a very variable one, as noticed by Boheman, and the elytra are sometimes entirely black. *C. omissa* was based upon abraded specimens of this dark form. *C. catenulata* may chiefly be known by its moderately convex shape (♂ subrotundate, ♀ ovate) and pubescent surface, the elytra and the sides of the prothorax rather coarsely punctured. Specimens occur with the spots small, sometimes with only three on each elytron; those from Western Mexico are much larger than the others. We figure a male of one of Boheman's types of *C. catenulata* (fig. 5), from Playa Vicente, a female of his *C. 11-maculata* (from the Stockholm Museum) (fig. 6), and a female of the variety *a* from Capetillo (fig. 7).

13. **Chelymorpha juvenca.** (Tab. VII. fig. 8, ♀.)

Chelymorpha juvenca, Boh. Monogr. Cassid. ii. p. 84 [1], and iv. p. 218 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 84 [3].

Hab. Mexico [1–3], Cordova, San Andres Tuxtla (*Sallé*), Misantla, Oaxaca (*Höge*).

Apparently peculiar to the eastern and southern parts of Mexico. Six varieties of this variable species are described by Boheman. *C. juvenca*, especially in the male sex, has very much the facies of an *Epilachna*, of the family Coccinellidæ; it may be known by its very pubescent upper surface and convex shape—subrotundate in the male, ovate in the female.

14. Chelymorpha crux-nigra.

Chelymorpha crux-nigra, Boh. Monogr. Cassid. iv. p. 218 [1].

Hab. Mexico (*coll. Chevrolat* [1]).

We have not received a specimen of this insect; but there is an example of it, doubtless the type, marked "ex Chevrolat," in the Hamlet Clark collection of Cassididæ, now in the National Museum. It is probably a variety of *C. juvenca*. The elytra are sanguineous, with the suture, the exterior margin, and a median fascia black.

15. Chelymorpha mexicana. (Tab. VII. fig. 9, ♀.)

Subovate (♂), oblong ovate (♀), moderately convex, glabrous, shining; rufo-testaceous or testaceous, the head, two small dots on the disc of the prothorax (often obsolete), and the scutellum, black; the elytra each with six or seven spots, and sometimes a narrow streak below the shoulder, and a common subquadrate or oval mark on the suture some little distance below the base, black, the spots placed thus—two a little below the base (one on the humeral callus, the other lower down and midway between it and the sutural mark), three in a transverse row about the middle (the inner one transverse, near the suture, the outer one on the margin and in front of the other two), one, usually small, on the disc midway between the inner one of these and the apex, and sometimes one close to the margin behind this; the antennæ, legs, and under surface black, the antennæ with joints 1–5 more or less rufo-testaceous beneath. Head coarsely, rugosely punctured and sharply canaliculate between the eyes, the groove limited on either side by a smooth cariniform elevation, the lower part with coarse separate punctures; antennæ rather stout, scarcely reaching to the base of the prothorax, the five basal joints shining and almost smooth. Prothorax convex, twice as broad as long, broadly arcuate-emarginate in front, the sides rounded almost from the base (more strongly so in the male) and rapidly converging from the middle forwards, the base deeply emarginate on either side externally, the median lobe broad and obtuse, the hind angles sharp and produced behind; the disc with an interrupted median groove, sparsely, very finely punctate; the margins moderately expanded, deflexed, coarsely, confluently punctate, the outer edge not thickened. Scutellum transversely triangular, smooth. Elytra moderately convex, somewhat flattened on the disc anteriorly, in the ♂ about three, in the ♀ fully three and a half, times as long as the prothorax, at the base not wider than it, slightly dilated at the middle, the sides obliquely converging thence to the base in the ♂, gradually converging in the ♀, the humeri obtuse and embraced by the hind angles of the prothorax, the apices conjointly rounded; the margins moderately expanded and strongly deflexed; the entire surface closely, finely punctate, the punctures on the margins closer and finer than those on the disc. Beneath glabrous, smooth, the metapleuræ coarsely rugose; prosternum shallowly sulcate posteriorly. Claws appendiculate.

Length, ♂ ♀, 9–11½, breadth 6–7½ millim.

Hab. Mexico, Guanajuato (*Sallé*), San Juan del Rio (*Höge*).

Numerous examples. Closely allied to *C. biannularis*, but evidently distinct from that variable insect. The elytral spots are small and show no tendency to coalesce, the external one of the posterior two being often obsolete.

16. Chelymorpha biannularis. (Tab. VII. figg. 10, ♂; 11, ♂, var.)

Chelymorpha biannularis, Boh. Monogr. Cassid. ii. p. 66 [1], and iv. p. 215 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 82 [3].

Chelymorpha fasciata, Boh. Cat. Col. Ins. Brit. Mus. ix. p. 77 [4]; Monogr. Cassid. iv. p. 203 [5].

Chelymorpha 10-punctata, Sturm in litt.[6]

Hab. Mexico [1–5] (*Sallé, ex coll. Sturm*), Ventanas in Durango, Mazatlan, Tacambaro

(*Höge*), Puebla, Duraznal, Michoacan (*Sallé*), Atlixco (*Sallé, Höge*), Chilpancingo (*Höge, H. H. Smith*), Amula (*H. H. Smith*), Cuernavaca (*Sallé, Höge, H. H. Smith*), Oaxaca (*Sallé, Höge*).

Common in the central and western parts of Mexico. Six varieties of this species are described by Boheman, and to these may also be added *C. fasciata*, the type of which is contained in the British Museum. We have received two specimens of the variety *fasciata* from Michoacan; it differs from typical *C. biannularis* in having the median fascia well defined, and disconnected from the posterior markings. We figure two male examples, one of which (fig. 11) represents the var. *fasciata*.

17. **Chelymorpha 14-punctata.** (Tab. VII. figg. 12, 13, ♀; 14, ♂, var.)

Chelymorpha 14-punctata, Boh. Monogr. Cassid. ii. p. 40 [1], and iv. p. 206 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 78 [3].

Chelymorpha 16-stillata, Boh. Cat. Col. Ins. Brit. Mus. ix. p. 78 [4]; Monogr. Cassid. iv. p. 206 [5].

Hab. MEXICO [1–3] (*Mus. Brit.* [4 5]; *coll. Baly*), Puebla, Atlixco (*Sallé*), Matamoros Izucar, Acapulco (*Höge*), Puente de Ixtla in Morelos (*H. H. Smith*).

Var. The elytral spots smaller, the posterior two obsolete. (Fig. 14.)

Chelymorpha conjugata, Boh. Monogr. Cassid. ii. p. 43 [6], and iv. p. 207 [7]; Cat. Col. Ins. Brit. Mus. ix. p. 78 [8].

Hab. MEXICO [6–8] (*coll. Baly*), Matamoros Izucar (*Höge*).

Most of the specimens I have seen of this species are from the Mexican State of Puebla. I have examined the type of *C. 16-stillata* in the British Museum, and also a specimen of *C. conjugata* (♂) named by Boheman himself in the same collection: the former * is inseparable from *C. 14-punctata*; the latter is a variety of the same species with the two posterior spots obliterated, and has been received with the typical form from Matamoros Izucar. The elytra have each six rather large black spots, arranged 2, 2, 2, the posterior two very obliquely placed, each pair showing a tendency to become coalescent, and the suture is sometimes black at the base; the prothorax has two large black spots placed transversely on the disc. We figure a typical example (female) from Puebla (fig. 12); a female, from Acapulco, agreeing with the type of *C. 16-stillata* in the British Museum (fig. 13); and a male, from Matamoros Izucar, agreeing with a specimen named as *C. conjugata* by Boheman in the same collection (fig. 14).

18. **Chelymorpha 13-maculata.** (Tab. VII. fig. 15, ♀.)

Chelymorpha 13-maculata, Boh. Monogr. Cassid. ii. p. 42 [1], and iv. p. 207 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 78 [3].

Hab. MEXICO [1–3].

* This has six spots on each elytron, as in typical *C. 14-punctata*; Boheman gives seven.

We have not received a specimen of this species, which is a close ally of *C.* 12-*signata*, differing from it in its rufo-testaceous colour, more convex shape, and more coarsely punctured elytra, each elytron with five large rounded spots, arranged 2, 2, 1. Boheman's type from the Stockholm Museum is figured.

19. **Chelymorpha 12-signata.** (Tab. VII. fig. 16, ♀.)

Chelymorpha 12-signata, Boh. Monogr. Cassid. ii. p. 41[1], and iv. p. 207[2]; Cat. Col. Ins. Brit. Mus. ix. p. 78[3].

Hab. Mexico[1–3], Atlixco (*Sallé*), Cerro de Plumas, Acapulco, Tapachula (*Höge*), Oaxaca (*Sallé, Höge*).

Not uncommon in Oaxaca and at Tapachula. Smaller and more convex than *C.* 14-*punctata*; the elytra a little more coarsely punctured, and with smaller and fewer spots (at most five on each elytron). In the typical form there are five spots on each elytron, arranged 2, 2, 1; but one or more of these are absent in some specimens. In one example from Oaxaca only the humeral spot is present, and in another from the same locality the five spots are larger than usual. Some of the varieties are scarcely separable from the var. *conjugata* of *C.* 14-*punctata*. I have examined one of Boheman's types, a female, which is here figured.

20. **Chelymorpha guttifera.** (Tab. VII. fig. 17.)

Chelymorpha guttifera, Boh. Monogr. Cassid. ii. p. 86[1], and iv. p. 219[2]; Cat. Col. Ins. Brit. Mus. ix. p. 84[3].

Hab. Guatemala[1–3], Capetillo (*Champion, Rodriguez*), Zapote (*Champion*), Escuintla (*Conradt*).

Not uncommon in Guatemala. A species readily recognizable by its glabrous shining surface, above and beneath black; the elytra each with five rather large spots, and the prothorax with a large oblong patch on either side of the disc, yellow or reddish-yellow.

21. **Chelymorpha flavomaculata.** (Tab. VII. fig. 18.)

Ovate, convex, glabrous, very shining; black, the prothorax with an oblong rufo-testaceous patch on either side of the disc extending from the middle to the similarly coloured anterior margin; the elytra each with four large orange-yellow patches—one at the base, transverse, extending from the humeral callus nearly to the suture, one on the disc before the middle, equally large, rounded or transverse, one below the shoulder, obovate (half on the disc and half on the margin), and one some distance beyond the middle, subtriangular, extending across the disc nearly to the suture and downwards nearly to the apex, the latter slightly excised on its outer edge and with a black spot in the centre, or so deeply excised as to form a >-shaped mark; the antennæ, legs, and under surface black, the antennæ with the five basal joints testaceous beneath. Head rugose and deeply canaliculate between the eyes, the lower part with a few scattered punctures; antennæ about reaching the base of the prothorax, the five basal joints smooth and shining. Prothorax convex, twice as broad as long, deeply arcuate-emarginate in front, the sides arcuately converging from the base, the base deeply emarginate on either side externally, the median lobe broad and obtuse, the hind angles produced behind; the disc with an abbreviated median groove, sparsely, finely punctate; the margins moderately expanded, rather coarsely, confluently punctate, the outer edge

very narrowly reflexed. Scutellum smooth. Elytra three and a half times as long as, and much broader than, the prothorax, moderately rounded at the sides, convex, with the sides of the disc rather abruptly declivous and the humeral callus prominent, the humeri rounded; the margins moderately expanded, deflexed; the entire surface thickly, rather coarsely punctate. Beneath sparsely pubescent; prosternum deeply sulcate posteriorly. Claws appendiculate.

Length 9½–11, breadth 7–8½ millim.

Hab. NICARAGUA, Chontales (*Belt*, *Janson*).

Three examples, apparently all females, two with the anteapical patch divided so as to form a large >-shaped mark on each elytron. This is a species with the elytra marked very nearly as in one of the varieties of the Mexican *C. juvenca*, Boh., from which its glabrous, very shining upper surface distinguishes it at a glance. The insect is nearest allied to *C. 10-stillata*, Boh.

22. **Chelymorpha decem-stillata.** (Tab. VII. fig. 19.)

Chelymorpha decemstillata, Boh. Cat. Col. Ins. Brit. Mus. ix. p. 82 [1]; Monogr. Cassid. iv. p. 215 [2].

Hab. MEXICO [1 2], Cerro de Plumas (*Höge*).

We have received three specimens of this species. Very like *C. guttifera*, but with the prothorax black, the apical margin excepted. The elytra are more coarsely and a little more closely punctured; the spots larger, the median one on the disc especially.

23. **Chelymorpha epilachnoides.** (Tab. VII. fig. 20, ♀.)

♀. Ovate, convex, glabrous, moderately shining, black, the prothorax with the apex more or less testaceous on either side, and sometimes with a rufo-testaceous spot on either side of the disc a little before the middle; the elytra each with four very large flavo-testaceous patches, together occupying more than half of the entire surface—one at the base extending nearly to the suture, subquadrate, a similar mark behind it extending nearly to the middle, the two confluent in one example, an obovate patch below the shoulder (half on the disc and half on the margin), and an exceedingly large subtriangular patch beyond the middle, the latter slightly excised on its outer edge and with a small black spot in the centre; the antennæ, legs, and under surface black, the five basal joints of the antennæ testaceous beneath. Head rugose and canaliculate between the eyes, the lower part with a few fine scattered punctures; antennæ extending to a little beyond the base of the prothorax, the five basal joints smooth and shining. Prothorax convex, twice as broad as long, deeply arcuate-emarginate in front, the sides very rapidly arcuately converging from the base, the base deeply emarginate on either side externally, the median lobe broad and obtuse, the hind angles sharp and produced behind; the disc with an interrupted median groove, sparsely, minutely punctate; the margins moderately expanded, somewhat rugulosely punctured, the outer edge very narrowly reflexed. Scutellum smooth. Elytra three and a half times as long as, and very much wider than, the prothorax, moderately rounded at the sides, convex, with the sides of the disc rather abruptly declivous, and the humeral callus prominent, the humeri rounded; the margins moderately expanded, deflexed; the entire surface thickly, rather coarsely punctate. Beneath sparsely pubescent; prosternum very deeply sulcate from between the coxæ to the tip. Claws appendiculate.

Length 12½–13, breadth 9–9½ millim.

Hab. MEXICO, Ventanas in Durango (*Höge*).

Two examples, closely agreeing with each other. Another species resembling one of the forms of the variable Mexican *C. juvenca*, Boh.; but larger and glabrous above. This last-mentioned character brings *C. epilachnoides* near *C. 10-stillata*, *C. guttifera*, &c.

24. **Chelymorpha obliterata.** (Tab. VII. fig. 21, ♀.)

Subrotundate (♂), ovate (♀), convex, glabrous, shining; rufo-testaceous or testaceous, the head, the prothorax with a median vitta behind (usually extending narrowly forwards to the apex) and sometimes the sides broadly from the middle to the base, and the scutellum, black; the elytra with the suture for a short distance below the scutellum, the entire exterior limb, a small spot on the humeral callus, and sometimes a similar spot in a line with it about the middle, in one example with two other very small spots placed one behind the other nearer the suture (the anterior one nearly in a line with the median spot, when present), black; the antennæ and legs, the exterior limb of the elytra rather broadly, and the under surface of the body black, the antennæ with the four or five basal joints rufo-testaceous beneath. Head rugosely punctured and canaliculate between the eyes, the lower part with a few scattered punctures; antennæ about reaching the base of the prothorax, the five basal joints smooth and shining. Prothorax convex, twice as broad as long, arcuate-emarginate in front, the sides rounded from the base and rapidly converging from the middle forwards, the base deeply emarginate on either side externally, the median lobe broad and obtuse, the hind angles sharp and produced behind; the disc with an interrupted faint median groove, sparsely, minutely punctate; the margins moderately expanded, concave, coarsely, confluently punctured, the outer edge very narrowly reflexed. Scutellum smooth. Elytra regularly convex, in the ♂ about three, in the ♀ more than four times as long as the prothorax, and wider than it at the base, rounded at the sides anteriorly, widest before the middle, the humeri rounded; the margins rather broadly expanded and deflexed; the entire surface thickly, rather coarsely punctate. Beneath almost glabrous, smooth, the metapleuræ with scattered coarse punctures; prosternum very deeply sulcate posteriorly. Claws appendiculate.

Length, ♂ ♀, 9–10$\frac{3}{5}$, breadth 7–8 millim.

Hab. GUATEMALA, Tactic in Vera Paz (*Conradt*), San Gerónimo in Vera Paz (*Champion*).

A pair from Tactic and a female from San Gerónimo. This insect closely resembles Boheman's var. *e* of the Mexican *C. juvenca*; but may easily be known from it by the entirely glabrous upper surface. It is more nearly allied to *C. guttifera*, *C. epilachnoides*, &c. The species is probably a variable one.

SELENIS.

Selenis, Hope, Ann. Nat. Hist. iii. p. 96, t. 4. fig. 3 (1839); Boheman, Monogr. Cassid. ii. p. 94.

A Tropical-American genus containing four described species, one of which occurs within our limits, remarkable from having the humeral angles of the elytra acutely prolonged forwards in the male sex, the elytra themselves often perforated.

1. **Selenis sparsa.** (Tab. VII. figg. 22, ♂; 23, ♀.)

Selenis sparsa, Boh. Monogr. Cassid. ii. p. 100[1], and iv. p. 221[2]; Cat. Col. Ins. Brit. Mus. ix. p. 86[3].

Hab. ? MEXICO[1–3]; NICARAGUA, Chontales (*Belt*, *Janson*); COSTA RICA (*Sallé*); PANAMA, Bugaba, David, Tolé (*Champion*), Chiriqui (*Ribbe*), Matachin (*Thième*).—COLOMBIA[1–3]; ? BOLIVIA[1].

Found in abundance by myself on low plants on the river-banks at David. The localities "Mexico" and "Bolivia" require confirmation; both are probably given in mistake by Boheman[1], the second not being quoted by him in his subsequent works.

OMOPLATA.

Omoplata, Hope, Col. Man. iii. p. 159 (1840); Boheman, Monogr. Cassid. ii. p. 101.

A Tropical-American genus containing about forty-five described species. Of the four *Omoplatæ* already recorded from within our limits, the three from Mexico (the types of which I have not seen) almost certainly belong to *Physonota*; one of these latter, *O. calcarata*, was, I have no doubt, subsequently redescribed by Boheman under *Physonota*, and it is here placed under that genus. Two species of *Omoplata*, however, occur in the southern parts of our region, one, *O. quadristillata*, Boh., being very like *Mesomphalia lebasi*, Boh., an insect inhabiting the same districts, the other, *O. tersa*, Boh., ranging from Brazil to the State of Panama.

1. **Omoplata tersa.** (Tab. VII. fig. 24, ♂.)

Omoplata tersa, Boh. Monogr. Cassid. ii. p. 106 [1], and iv. p. 222 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 87 [3].

Hab. Panama, Bugaba (*Champion*).—Brazil [1-3].

Five specimens from the State of Panama, agreeing with others from Brazil, and also with Boheman's description.

2. **Omoplata quadristillata.** (Tab. VII. fig. 25, ♂.)

Omoplata quadristillata, Boh. Monogr. Cassid. iv. p. 226 [1].

Hab. Nicaragua, Chontales (*Belt, Janson*); Costa Rica (*Wagner, in Mus. Berol.*[1]; *Van Patten*).

I have seen six specimens of this species. Boheman described a female; the male has, as usual, sharper and more prominent humeri. A male from Chontales is figured.

3. **Omoplata albiventris.**

Omoplata albiventris, Boh. Monogr. Cassid. ii. p. 136 [1], and iv. p. 225 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 90 [3].

"Subrotundata, minus convexa, subnitida, flavo-testacea; abdomine pallide flavo; prothorace supra sat crebre punctulato, medio lineola brevi, obsoleta, brunnea notato, lateribus postice utrinque citius rotundato; elytris confertim, parum profunde punctatis, pone medium macula parva, obsoleta, dilute fusca; margine hyalino; humeris parum prominulis, antice subtruncatis.—Long. 10, lat. 9 millim."

Hab. Mexico [1-3].

Boheman [1] compares this species with his "*O. maculiventris*": the only species of Cassididæ described by him under this specific name is a Mexican *Physonota*. Apart from other characters, the genus *Omoplata* may be known from *Physonota* by the appendiculate claws.

4. **Omoplata maculicollis.**

Omoplata maculicollis, Boh. Monogr. Cassid. ii. p. 137 [1], and iv. p. 225 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 90 [3].

"Subtriangularis, convexa, nitida, supra dilute, sordide testacea, subtus nigra; antennis basi et extrorsum verticeque transversim, nigris; prothorace subtiliter, crebre punctulato, medio linea abbreviata, macula parva transversa utrinque, arcu postico scutelloque nigris; elytris remote, inæqualiter punctulatis; humeris antrorsum modice prominulis, leviter rotundatis; tibiis apice extus obtuse calcaratis.—Long. 12, lat. 10 millim."

Hab. Mexico [1–3].

Unknown to me. Boheman [1] states that this species is similar in size and form to the South-American *O. marginata* (Linn.) (♀), the type of the genus; but he gives the hind angles of the prothorax as rounded and the apex rotundate, characters quite foreign to *Omoplata*. To judge from the description, *O. maculicollis* appears to be a near ally of *Physonota calcarata*, Boh.

OMASPIDES.

Omaspides (Chevrolat), Dej. Cat. 3rd edit. p. 395 (1837); Hope, Col. Man. iii. p. 158 (1840); Boheman, Monogr. Cassid. ii. p. 144.

A genus of similar distribution to *Omoplata*, but with fewer species, twelve only having been described. One of these is from the State of Panama.

1. **Omaspides bistriata.** (Tab. VIII. fig. 1.)

Omaspides bistriata, Boh. Monogr. Cassid. iv. p. 228 [1].

Hab. Panama, Chiriqui (*Trötsch*), Veragua (*coll. Baly* [1]).

The type is figured.

2. *Prothorax more or less rounded and projecting beyond the head in front (emarginate in some species of* Batonota *and* Hybosa).

To this group also belong the Eastern genera *Basipta*, *Aspidomorpha*, and *Laccoptera*, and the Antillean genus *Asteriza*.

a. *Claws simple or angularly dilated at the base.*

BATONOTA.

Batonota, Hope, Ann. Nat. Hist. iii. p. 98, t. 4. fig. 6 (1839); Boheman, Monogr. Cassid. ii. p. 153.

Forty-five species of this remarkable genus have been described, all American, ranging from the Mexican State of Durango to the Argentine Republic.

i. *Elytra with a very long, erect, obtuse spine before the middle.*

1. **Batonota aurita.** (Tab. VIII. figg. 2; 2 *a*, profile; 2 *b*, antenna.)

Batonota aurita, Boh. Monogr. Cassid. iv. p. 237 [1].

Hab. Mexico, Ventanas in Durango, Acapulco (*Höge*), Rio Papagaio in Guerrero (*H. H. Smith*), Puebla (*Sallé*); Nicaragua, Chontales (*Janson*); Costa Rica (*Wagner, in Mus. Berol.* [1]).

Apparently not uncommon in Western Mexico. The prothorax is deeply foveate on either side of the middle at the base, a character not mentioned by Boheman; some specimens have a brownish ⟨-shaped mark on either side of the disc, the two marks often connected in front, but this may be partly due to discoloration. A specimen from Ventanas is figured.

2. **Batonota yucatana.** (Tab. VIII. figg. 3; 3 *a*, profile.)

Obtusely triangular, the prothorax shining, the elytra subopaque; castaneous or yellowish castaneous; the antennæ piceous, with the five basal joints testaceous; the legs and the body beneath testaceous or rufo-testaceous, the tibiæ sometimes stained with piceous above. Head canaliculate and punctured between the eyes; antennæ rather short and slender, not extending beyond the humeri, joints 1–5 almost smooth, shining, 2 and 3 very short, subequal, 4 and 5 twice as long as 3, equal, 6–11 densely punctured and opaque, 6 barely the length of 4 and 5 united, 6–10 subequal in length, 11 longer than 10. Prothorax strongly transverse, feebly arcuate-emarginate in front (truncate if viewed from above), the sides very rapidly and abruptly converging from the base, a little rounded behind, the base deeply emarginate on either side of the broad emarginate median lobe and thence to the hind angles very obliquely truncate; the disc transversely convex, hollowed on either side in front (appearing longitudinally raised in the middle at the apex), and with a shallow fovea on either side of the median lobe at the base; the margins feebly expanded, the exterior edge slightly reflexed; the entire surface very sparsely, finely punctate. Scutellum flat, almost smooth. Elytra at the base one and a half times the width of the prothorax, obtusely triangular, bluntly rounded at the apex, narrowing from the base, the sides sinuate behind the humeri; armed with a very long, erect, compressed, obtuse spine before the middle; the disc very coarsely, subseriately punctured, the punctures not very closely placed, and with indications of two or three irregular costæ, the interstices with very minute scattered punctures; the margins narrowly expanded, with a series of very coarse, deep, transverse foveæ extending from the middle to the apex, almost smooth in front; the humeri moderately prominent, rounded exteriorly and in front, and with an oblique carina extending inwards to the humeral callus. Beneath very shining, almost smooth, the apex of each ventral segment sparsely punctured and pubescent; prosternum flat and almost unimpressed behind, more or less foveate in the middle in front.

Length $6\frac{1}{2}$–$7\frac{1}{2}$, breadth $5\frac{1}{2}$–6 millim.

Hab. MEXICO, Temax in North Yucatan (*Gaumer*).

Numerous examples. This small species is allied to *B. aurita*, Boh.; but it is much smaller and darker than that insect, the prothorax is more transverse, and the coarse punctures on the elytra are not nearly so numerous, the interstices flatter and subopaque. The punctures on the elytral interstices are only visible under a strong lens.

ii. *Elytra with a compressed, acute or triangular, transverse elevation before the middle.*

3. **Batonota nodosa.** (Tab. VIII. figg. 4; 4 *a*, profile.)

Batonota nodosa, Boh. Monogr. Cassid. ii. p. 160 [1], and iv. p. 237 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 94 [3].

Hab. PANAMA, David, Caldera, Tolé (*Champion*).—COLOMBIA [1–3].

Not uncommon in Chiriqui, where it has been found on the calabash-tree, *Crescentia cujete*. I have compared our specimens with one from Colombia in the British Museum, named by Boheman himself.

4. **Batonota insidiosa.** (Tab. VIII. figg. 5; 5 *a*, profile.)

Batonota insidiosa, Boh. Monogr. Cassid. ii. p. 174 [1], and iv. p. 241 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 96 [3].

Hab. GUATEMALA [2] (*Mus. Brit.* [3] *& coll. Baly*); PANAMA, Bugaba (*Champion*).—COLOMBIA [1–3]; BRAZIL [2].

I have seen a dozen specimens of this species, including those from Guatemala, in the British Museum, named by Boheman [3]. The prothorax in southern specimens is sometimes entirely rufo-testaceous. *B. insidiosa* resembles *B. nodosa*; but it is considerably larger, the elytral elevation is not so prominent, the exterior limb is blackish-æneous, and the prothorax is usually black, the anterior margin excepted. The five Panama examples have the elytral elevation a little stronger and more acute than in those from Guatemala.

5. **Batonota sexplagiata.** (Tab. VIII. figg. 6; 6 *a*, profile.)

Batonota sexplagiata, Wag. Mittheil. Münch. ent. Ver. v. pp. 44, 47 [1].

Hab. GUATEMALA, El Reposo, Zapote (*Champion*); NICARAGUA, Rio Tipetape [1].

Three specimens of a *Batonota* from the Pacific slope of Guatemala agree with Wagener's description [1] of *B. sexplagiata*, except that they have the ground-colour of the elytra green (instead of black), and the head, underside, and legs entirely black. The anterior edge of the broadly expanded margin of the elytra is straight to the humeral angle, this part being distinctly concave in the closely allied *B. rufo-ornata*.

6. **Batonota rufo-ornata.** (Tab. VIII. figg. 7; 7 *a*, profile.)

Batonota rufo-ornata, Baly, Trans. Ent. Soc. Lond. 1869, p. 86 [1].
Batonota jansoni, Baly, op. cit. 1872, p. 71 [2].

Hab. NICARAGUA [1], Chontales (*Janson* [2], *Belt*).

By mistake, Baly described this species twice. I have seen ten specimens of it, varying only in the ground-colour of the elytra, from greenish-æneous to bluish-black or black. The type is figured.

7. **Batonota godmani.** (Tab. VIII. figg. 9; 9 *a*, profile.)

Batonota godmanii, Baly, Trans. Ent. Soc. Lond. 3rd ser. ii. p. 242 (1864) [1].

Hab. PANAMA [1], Lion Hill (*M'Leannan*).

Three examples of this species are contained in the Baly collection, one of which is figured.

iii. *Elytra with a compressed, obtuse, transverse elevation before the middle.*

8. Batonota eremita.

Batonota eremita, Boh. Monogr. Cassid. iv. p. 240[1].

Hab. Costa Rica (*coll. Dohrn* [1]).

Apparently exceedingly close to, and perhaps not distinct from, *B. insidiosa*, from which it seems to differ in having the elytra marked with smaller and more numerous spots, and the elevation obtuse (instead of subacuminate, as in *B. insidiosa*).

9. Batonota biplagiata. (Tab. VIII. figg. 10; 10 *a*, profile; 10 *b*, antenna.)

Subtriangular, broad; the upper surface opaque, clothed with a very short, fine, scattered, ashy pubescence; the head, antennæ, prothorax, scutellum, legs, and the body beneath black; the elytra green or bluish-green, each with a very large dilute sanguineous or rufo-testaceous patch occupying fully half the entire surface—extending from the base to far beyond the middle and almost surrounding the ante-median elevation, and laterally (from a little behind the humeral carina to beyond the middle) to very near the outer margin. Head sparsely punctured and canaliculate between the eyes; antennæ extending to far beyond the humeri, joints 1–5 almost smooth, shining, 2 and 3 very short, equal, 4 and 5 longer, 5 longer than 4, 6–11 densely punctured and opaque, 6 elongate, as long as 3–5 united, 6–10 equal in length, 11 much longer than 10. Prothorax strongly transverse, broadly and feebly arcuate-emarginate in front, the sides rapidly arcuately converging from the base, the base deeply emarginate on either side of the broad slightly emarginate or truncate median lobe and thence to the hind angles very obliquely truncate; the disc obsoletely longitudinally carinate in the middle in front; the margins concave, moderately expanded; the entire surface thickly, very minutely punctate. Scutellum foveate in the middle. Elytra at the base nearly twice as wide as the prothorax, subtriangular, conjointly rounded at the apex, narrowing from the base, with a strongly compressed, transverse, obtuse elevation before the middle; the disc coarsely, closely, subseriately punctured, and with two irregular carinæ near the suture and one about the middle, the punctures on the apical portion much finer and shallower; the margins very broadly expanded, thickly, finely, confusedly punctured, and separated from the disc by a row of very coarse, deep impressions; the humeri prominent but obtuse, reflexed and slightly oblique in front, and with an oblique carina extending inwards to the prominent humeral callus. Beneath shining, sparsely pubescent, the apex of each ventral segment fringed with longer hairs; prosternum very deeply sulcate.

Length 14–14½, breadth 13–13½ millim.

Hab. Panama, Volcan de Chiriqui 4000 feet (*Champion*).

Two examples, from the western slope of the Volcano. Allied to *B. rufo-ornata*, *B. sexplagiata*, &c.; but with a more obtuse elytral elevation (not at all acuminate, if viewed from behind), the elytra each with a very large dilute sanguineous or rufo-testaceous patch occupying half the entire surface.

CISTUDINELLA.

Head deeply withdrawn beneath the prothorax; the latter broadly rounded or truncate anteriorly, the base broadly arcuate-emarginate on either side and with an obtuse median lobe, the hind angles sharp and produced backwards, the anterior angles obliterated; the scutellum small, strongly transverse; the elytra forming almost a continuous outline with the prothorax; prosternum trnncated in front, proudced and very broadly, triangularly dilated behind the coxæ, and received by the deeply excavate V-shaped

mesosternum, deeply grooved on either side posteriorly (but not down the middle); claws divaricate, simple; form elliptic or oval.

This genus is proposed for the South-American *Chelymorpha punctipennis*, *C. apiata*, and *C. obducta*, Boh., and for the new species from Chiriqui described below *. In *Chelymorpha* the head is not so deeply inserted, it being usually prominent, the prosternal process is deeply sulcate down the middle, and the claws are appendiculate, *i. e.* angularly dilated on the lower side towards the base.

1. **Cistudinella foveolata.** (Tab. VIII. fig. 8, ♂.)

♂. Subelliptic, convex, rather broad, shining, testaceous, the expanded margins of the prothorax and elytra somewhat pellucid; the eyes and antennæ black, the five basal joints of the latter testaceous; the body beneath black, the ventral segments broadly bordered with testaceous; the legs entirely testaceous. Antennæ about reaching the base of the prothorax; joints 6–11 rather stout and compressed, 6–10 as broad as long, 11 acuminate, longer than 10. Prothorax twice as broad as long, very rapidly, arcuately converging from the base, rounded in front and projecting over the head, the base broadly arcuate-emarginate on either side, the median lobe produced, rounded at the tip, the hind angles sharp; the disc transversely depressed in the middle before the base; the margins broadly expanded, deeply transversely depressed in front and behind, reticulate; the surface smooth, the disc only with a few fine, scattered punctures at the base. Elytra about two and a half times as long as, and at the sides forming almost a continuous outline with, the prothorax, conjointly rounded at the apex; the disc transversely convex before the middle and then somewhat obliquely declivous to the apex, with coarse, deep, widely scattered, subserially arranged black punctures, the interspaces smooth and flat; the margins rather broadly expanded, smooth, reticulate; the humeri obtuse and embraced by the hind angles of the prothorax. Beneath shining, almost smooth.

Length 7, breadth $5\frac{1}{3}$ millim.

Hab. PANAMA, David in Chiriqui (*Champion*).

One specimen. Closely allied to the Brazilian *C. apiata*, Boh., but differing from it in having the prothorax less dilated at the sides anteriorly (more rapidly converging from the base), and the elytral punctures much less numerous, the interspaces quite flat; the general shape is also more elliptic.

PHYSONOTA.

Physonota, Chevrolat, Dej. Cat. 3rd edit. p. 398 (1837); Boheman, Monogr. Cassid. ii. p. 190 (1854) (partim); Chapuis, Gen. Col. xi. p. 386.

The name *Physonota* is here adopted solely for those species that have the claws simple, Boheman having also included under it, as noted by Chapuis, some South-American forms (*P. fuscula*, &c.) with the claws appendiculate. The metropolis of *Physonota* would appear to be in Mexico, though only one or two representatives occur north of our boundary; the species are all American, ranging from Canada to Chili. Many of the species of *Physonota*, and of the genera that follow, are, as is well known, brilliantly metallic golden in life.

* Other undescribed South-American species exist in collections.

Tibiæ not dilated at the apex.
- Elytra gibbous . . . . Species 1–4.
- Elytra more or less convex.
  - Elytra conjointly rounded at the apex.
    - Prothorax immaculate or spotted, the elytra without distinct markings.
      - Prothorax with three or more small black spots or streaks . . . . . Species 5–14.
      - Prothorax immaculate . . . . Species 15–17.
    - Prothorax and elytra each with three broad black vittæ . . . . Species 18.
  - Elytra less rounded behind, the apices sharper or attenuate (especially in ♀).
    - Prothorax with three or more small black spots or streaks . . . . . . Species 19–21.
    - Prothorax immaculate, or, at most, with a short black median streak . . Species 22–25.

Tibiæ obtusely dilated at the apex . . . . Species 26.

Tibiæ very broadly, subangularly dilated at the apex . . . . Species 27.

1. **Physonota alutacea.** (Tab. VIII. fig. 12, ♀, var. *cyrtodes*.)

Physonota alutacea, Boh. Monogr. Cassid. ii. p. 191[1], and iv. p. 243[2]; Cat. Col. Ins. Brit. Mus. ix. p. 98[3].

Physonota cyrtodes, Boh. Monogr. Cassid. ii. p. 192[4], and iv. p. 243[5]; Cat. Col. Ins. Brit. Mus. ix. p. 98[6].

Hab. Mexico[1–6] (*ex coll. Sturm*), Presidio de Mazatlan (*Forrer*), Guajuco in Nuevo Leon (*Dr. Palmer*), Monterey in Nuevo Leon, Ventanas in Durango, Cordova, Tapachula in Chiapas (*Höge*), Puebla, Matamoros Izucar, Yolos, Capulalpam, San Andres Tuxtla, Vera Cruz[3], Juquila (*Sallé*), Amula, Chilpancingo, and Acapulco in Guerrero, Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*), Jalapa (*F. D. G.*), Oaxaca (*Sallé*, *Höge*), Campeche in Yucatan (*Sallé*), Temax in North Yucatan (*Gaumer*); British Honduras, R. Hondo, R. Sarstoon (*Blancaneaux*); Guatemala[5] (*Sallé*, *Scherzer*[6]), Cubilguitz, Tamahu, Chacoj, San Juan, Panzos, and San Gerónimo in Vera Paz, El Reposo, Volcan de Atitlan, Pantaleon, Zapote (*Champion*); Nicaragua, Chontales (*Belt*, *Janson*); Costa Rica (*Van Patten*), San Francisco (*Rogers*); Panama, Volcan de Chiriqui, Caldera, Bugaba (*Champion*), Chiriqui (*Ribbe*).—Colombia[1–6]; Venezuela[3].

This is one of the most abundant species of Cassididæ within our limits, extending northwards into the Mexican States of Nuevo Leon and Durango. Two forms of this species occur, connected by intermediate gradations, one with the elytra sparsely and rather finely punctate (*P. alutacea*), the other with the elytra coarsely and more closely punctate (*P. cyrtodes*); the latter usually has the black spots on the prothorax and elytra larger and more distinct. A female specimen of the form *cyrtodes*, from Amula, is figured.

2. **Physonota nitidicollis.** (Tab. VIII. fig. 13.)

Physonota nitidicollis, Boh. Monogr. Cassid. ii. p. 231[1], and iv. p. 253[2]; Cat. Col. Ins. Brit. Mus. ix. p. 103[3].

Hab. Mexico [1-3] (*Sallé, ex coll. Sturm*), Xucumanatlan, Omilteme, Amula, and Chilpancingo, all in Guerrero, Cuernavaca in Morelos (*H. H. Smith*).

Sent in plenty by Mr. Smith from Western Mexico. Boheman's type from the Stockholm Museum is figured.

3. **Physonota citrina.**

Physonota citrina, Boh. Monogr. Cassid. ii. p. 231 [1], and iv. p. 254 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 103 [3].

Hab. Mexico [1-3], Cordova (*Sallé, Höge*), Cerro de Plumas, Jalapa, Oaxaca (*Höge*), Orizaba (*H. H. Smith & F. D. G.*).

Closely allied to *P. nitidicollis*, but much smaller, the prothorax immaculate, the elytra not darker at the suture and much less coarsely punctured.

4. **Physonota cerea.** (Tab. VIII. fig. 14.)

Physonota cerea, Boh. Monogr. Cassid. ii. p. 232 [1], and iv. p. 254 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 103 [3].

Hab. Mexico, Peras in Oaxaca (*Sallé*), Oaxaca [1-3] (*coll. Baly*).

I have seen six examples of this species, all agreeing in the peculiar rugose sculpture of the prothorax, the rugæ being transverse or oblique and more or less confluent; the elytral sculpture resembles that of *P. nitidicollis*.

5. **Physonota gigantea.** (Tab. VIII. fig. 11.)

Physonota gigantea, Boh. Monogr. Cassid. ii. p. 199, t. 5. figg. D, 1–5 [1], and iv. p. 247 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 99 [3].

Hab. Guatemala [1-3], El Reposo (*Champion*); Honduras (*Mus. Brit.*); Salvador, Acajutla (*Sallé*); Nicaragua, Chontales (*Janson*).—Ecuador, Guayaquil; Chili [1-3], Valparaiso [1-3]; Antilles [3].

This large species appears to be very widely distributed. The specimens I have seen of it labelled "Chili" in the British Museum, and in the late Dr. Baly's collection, do not differ from those from Central America. It is highly probable that the Chilian *P. cumingi* and *P. spencei*, Boh., are not distinct from *P. gigantea*. Two specimens of *P. gigantea* in the British Museum are labelled: "Came alive in timber from Honduras, 1869." An example from Acajutla is figured.

6. **Physonota perampla.** (Tab. VIII. fig. 15.)

Broad ovate, moderately convex, shining, dilute flavo-testaceous, the margins subhyaline, the eyes, mouth, and vertex black; the prothorax with a short median streak before the base and six small spots—four placed transversely near the base (two on either side of the disc, the inner one somewhat C-shaped, the outer

one smaller and rounded), and one on either side of the disc about the middle (strongly transverse and almost in a line with the C-shaped basal one)—black or piceous; the elytra usually with an oblong piceous spot on the humeral callus; the antennæ testaceous, joints 3–7 usually more or less infuscate above; the legs testaceous, the femora largely marked with black (except on their lower side), the tibiæ with a black line along their outer edge; the body beneath black, the sides broadly (a transverse patch on each ventral segment excepted), and also the prosternal process, testaceous. Head grooved between the eyes, thickly and somewhat coarsely punctured below; antennæ rather stout, reaching to the base of the prothorax, joints 3 and 4 elongate, equal in length, 3 twice as long as 2, 5–10 slightly decreasing in length, stouter than 4, 11 much longer than 10, acuminate. Prothorax about twice as broad as long, bisinuate at the base, with the median lobe broad and rounded, the sides very abruptly and rather obliquely converging anteriorly, strongly rounded behind, the apex rounded; the lateral and apical margins very broadly expanded, reticulate, the lateral margins transversely hollowed before and behind the middle; the disc obsoletely canaliculate and transversely depressed before the base; the surface very sparsely, minutely punctured, the punctures a little more distinct on the basal portion of the disc. Scutellum almost smooth. Elytra one half wider than, and three times as long as, the prothorax, a little longer in the female, narrowing from about the basal fourth, conjointly rounded at the apex, the humeri broadly rounded; the margins very broadly expanded, deeply hollowed below the base internally, reticulate; the disc irregularly, rather closely, and somewhat coarsely punctured, and with an irregular row of deep foveæ separating it from the margins, the latter more finely and more sparsely punctured. Beneath almost smooth.

Length 19½–21½, breadth 16–17 millim.

Hab. Nicaragua, Chontales (*Belt, Janson*); Costa Rica, Santa Clara (*Orozco, in Mus. Brit.*).

I have seen six examples of this very large species, which is much larger and broader than *P. gigantea*, Boh. *P. pellucida*, Wag., from Demerara, about equals it in size; but it differs in several particulars from the insect here described. The two specimens in Mr. O. E. Janson's collection are labelled with the name I have adopted.

7. **Physonota stigmatilis.** (Tab. VIII. fig. 16.)

Physonota stigmatilis, Boh. Monogr. Cassid. ii. p. 204[1], and iv. p. 249[2]; Cat. Col. Ins. Brit. Mus. ix. p. 99[3].

Hab. Mexico[1–3], Cordova, Playa Vicente (*Sallé*), Teapa in Tabasco (*H. H. Smith*); Guatemala, Volcan de Atitlan (*Champion*).

8. **Physonota incrustata.**

Physonota incrustata, Boh. Monogr. Cassid. ii. p. 203[1], and iv. p. 249[2]; Cat. Col. Ins. Brit. Mus. ix. p. 99[3].

"Subovata, modice convexa, supra dilute flavo-testacea, subtus nigra, testaceo-variegata; antennis extrorsum nigris; prothorace lævi, confertim nigro-maculato, margine late explanato, subremote punctulato; elytris mediocriter, vage punctatis, dorso fuscis, maculis albidis variegatis, subtus basi apiceque nigris; pedibus testaceis, nigro-variegatis.—Long. 15, lat. 12 millim."

Hab. Mexico[1–3].

Unknown to me. The specimen in the British Museum determined as *P. incrustata* by Boheman[3], not the actual type, seems to be only a discoloured male specimen of

P. attenuata. The prothorax is described as having numerous irregularly confluent black markings; but these may be partly due to discoloration.

9. **Physonota picticollis.** (Tab. VIII. fig. 17, ♀.)

Physonota picticollis, Boh. Monogr. Cassid. ii. p. 193[1], and iv. p. 245[2]; Cat. Col. Ins. Brit. Mus. ix. p. 98[3].

Physonota impromta, Boh. Monogr. Cassid. iv. p. 244[4].

Hab. Mexico[1-4] (*Mus. Brit.*), Ventanas in Durango (*Forrer*, *Höge*), Cerro de Plumas (*Höge*), Juquila (*Sallé*); Guatemala (*Mus. Brit.*), Coban (*Conradt*), Capetillo, Dueñas (*Champion*).

With the types of these two insects before me, I am quite unable to separate them as distinct species; *P. impromta* merely differs from *P. picticollis* in having an indistinct spot on either side of the median lobe of the prothorax at the base (often obsolete), and the elytra a little more closely punctured. Boheman appears only to have seen female specimens; the male has the elytra broader (at the base considerably wider than the prothorax) and shorter, with the humeri broadly rounded. We have received numerous examples of both sexes from Ventanas, in Western Mexico.

10. **Physonota ovalis.** (Tab. VIII. fig. 18, var.)

Physonota ovalis, Boh. Monogr. Cassid. ii. p. 195[1], and iv. p. 246[2]; Cat. Col. Ins. Brit. Mus. ix. p. 98[3].

Cassida brevilinea, Sturm, in litt.[4]

Hab. Mexico[1-4] (*Sallé*, *ex coll. Sturm*), Monterey in Nuevo Leon, Chihuahua city, Jalapa (*Höge*), Totosinapan (*Sallé*).

The specimens from Northern Mexico, and also the one from Jalapa, belong to the var. *b* of Boheman[1], which has two small spots on the prothorax on either side of the disc midway between the short median streak and the outer margin. The specimen from Totosinapan belongs to the var. *a*, which has only one spot on either side of the disc; and the example from Sturm's collection agrees with the type, which has a short median streak only on the prothorax. The specimen figured represents one of Boheman's types of the var. *a*.

11. **Physonota vitticollis.** (Tab. VIII. fig. 19, var.)

Physonota vitticollis, Boh. Monogr. Cassid. ii. p. 194[1], and iv. p. 245[2]; Cat. Col. Ins. Brit. Mus. ix. p. 98[3].

Hab. Mexico[1-3], Juquila (*Sallé*).

Of this species I have only seen two specimens of the var. *a* described by Boheman[2]; one of these is shown on our Plate. The elytra have irregular rows of rather coarse blackish punctures on the disc, the margins coarsely, irregularly punctate.

12. **Physonota separata.**

Physonota separata, Boh. Monogr. Cassid. ii. p. 205[1], and iv. p. 249[2]; Cat. Col. Ins. Brit. Mus. ix. p. 99[3].
Cassida nigropunctata, Sturm, in litt.[4]
Deloyala pallida, Sturm, in litt.[5]

Hab. Mexico[2–5] (*Chevrolat*[1]; *Sallé, ex coll. Sturm*), Cordova (*Sallé*), Cuernavaca (*Höge*).

I have seen four specimens of this insect, including one, no doubt the type, from the Chevrolat collection in the British Museum. *P. separata* only differs from *P. vitticollis* in having much fewer punctures on the disc of the elytra, these being widely separate one from another.

13. **Physonota turgida.** (Tab. VIII. fig. 20.)

Physonota turgida, Boh. Monogr. Cassid. ii. p. 197[1], and iv. p. 246[2]; Cat. Col. Ins. Brit. Mus. ix. p. 99[3].
Physonota bicolor, Sturm, in litt.

Hab. Mexico[1–3] (*Sallé, ex coll. Sturm*), Oaxaca (*Höge*).

There are two examples of this peculiar species in the Sallé collection, without nearer indication of locality. The type from the Stockholm Museum is figured. A rather narrow, oval species, with coarse, subserially arranged punctures on the elytra, the margins also coarsely punctured. The single specimen from Oaxaca is much smaller than the type, and has the dorsum of the elytra pitchy-brown, probably from discoloration.

14. **Physonota mexicana.** (Tab. VIII. fig. 21.)

Physonota mexicana, Boh. Monogr. Cassid. ii. p. 206[1], and iv. p. 249[2]; Cat. Col. Ins. Brit. Mus. ix. p. 100[3].

Hab. Mexico[1–3], Guanajuato (*Sallé*), Tula and Pachuca in Hidalgo (*Höge*).

Sent in plenty by Höge from the State of Hidalgo. *P. mexicana* is closely allied to *P. ovata*, Boh., but may easily be known from it by the blackish arcuate or >-shaped mark on either side of the disc of the prothorax near the base, midway between which is a short oblong streak; the elytra are rather coarsely, irregularly, seriate punctate, the margins also coarsely punctured.

15. **Physonota flavago.** (Tab. VIII. fig. 22.)

Physonota flavago, Boh. Monogr. Cassid. ii. p. 210[1], and iv. p. 249[2]; Cat. Col. Ins. Brit. Mus. ix. p. 100[3].

Hab. Mexico[1–3], Ciudad in Durango 8100 feet (*Forrer*).

We figure the type from the Stockholm Museum. Very closely allied to *P. picticollis*, Boh., but differing from it in the immaculate prothorax, and in having the elytra more coarsely and more closely punctured. The two specimens (♂ ♀) received

from Ciudad in Durango are much smaller than the type figured, measuring only 9 millim. (instead of 12) in length.

16. **Physonota ovata.**

Physonota ovata, Boh. Monogr. Cassid. ii. p. 219[1], and iv. p. 250[2]; Cat. Col. Ins. Brit. Mus. ix. p. 101[3].

Hab. MEXICO [1-3], Puebla, Parada, Peras, Oaxaca (*Sallé*), Xucumanatlan in Guerrero (*H. H. Smith*), Misantla (*Höge*).

Very like *P. humilis*, but smaller and more ovate; the elytra in the male broader and with more rounded humeri, the suture bordered with black beneath at the apex.

17. **Physonota citrinella.**

Physonota citrinella, Boh. Monogr. Cassid. ii. p. 219[1], and iv. p. 250[2]; Cat. Col. Ins. Brit. Mus. ix. p. 101[3].

"Oblongo-ovata, modice convexa, subnitida, dilute citrina, marginibus albidis, diaphanis; antennis extrorsum nigris; prothorace semicirculari, immaculato, extrorsum confertim reticulato; elytris crebre alutaceis, punctis sat profundis, remotis, hinc inde seriatis impressis; subtus margine macula basali suturaque apice, nigris.—Long. 10, lat. 7 millim."

Hab. MEXICO [1-3].

This species is compared with *P. ovata*, and stated to be nearly one half larger than that insect. I am unable to identify it amongst the large number of Mexican *Physonotæ* before me.

18. **Physonota disjuncta.** (Tab. VIII. fig. 23.)

Cassida disjuncta, Chevr. Col. Mex., Cent. i. fasc. iii. no. 82[1].

Physonota disjuncta, Boh. Monogr. Cassid. ii. p. 207[2], and iv. p. 249[3]; Cat. Col. Ins. Brit. Mus. ix. p. 100[4].

Hab. MEXICO [1-4] (*Sallé, ex coll. Sturm*), Ciudad in Durango 8100 feet, Milpas in Durango 5900 feet (*Forrer*), Omilteme in Guerrero 8000 feet, Cuernavaca in Morelos (*H. H. Smith*), Boca del Monte, Monte Verde, Jalapa (*Höge*), Guanajuato, Juquila in Oaxaca (*Sallé*).

A common Mexican species, easily known by the three black vittæ on the prothorax and elytra.

19. **Physonota caudata.** (Tab. VIII. fig. 24, ♀.)

Physonota caudata, Boh. Monogr. Cassid. ii. p. 222[1], and iv. p. 251[2]; Cat. Col. Ins. Brit. Mus. ix. p. 101[3].

Hab. MEXICO [1-3], Orizaba (*Sallé*), Misantla, Jalapa, Paso de San Juan (*Höge*).

Not uncommon in the Mexican State of Vera Cruz. The females have longer and more caudate elytra than the males.

20. **Physonota attenuata.** (Tab. VIII. fig. 25, ♀.)

Physonota attenuata, Boh. Monogr. Cassid. ii. p. 223[1], and iv. p. 251[2]; Cat. Col. Ins. Brit. Mus. xi. p. 102[3].

Hab. MEXICO [1-3] (*ex coll. Sturm*), Tampico in Tamaulipas (*Richardson*), Cordova (*Höge*), Acapulco (*J. J. Walker*), Tehuantepec (*Sallé*).

Sent in numbers by Höge from Cordova. This species is very like *P. caudata*; but it has the elytra more coarsely punctured, more obtuse at the apex in the male, the sides forming almost a continuous outline with the prothorax, the hind angles of the latter not so obtuse. One of Boheman's types (♀), kindly lent by the Berlin Museum, is figured.

21. Physonota limoniata. (Tab. IX. fig. 5.)

Physonota limoniata, Boh. Monogr. Cassid. iv. p. 247 [1].

Hab. MEXICO, Ventanas in Durango (*Höge*), Omilteme in Guerrero (*H. H. Smith*), Mochitlan in Guerrero (*Baron*), Juquila (*Sallé* [1]).

A typical example from the Sallé collection is figured. *P. limoniata* is exceedingly like *P. eucalypta*, and only differs from it in having the prothorax marked with a short median streak and two small spots near the base, the latter sometimes with one or two additional marks behind them.

22. Physonota humilis. (Tab. IX. fig. 4.)

Physonota humilis, Boh. Cat. Col. Ins. Brit. Mus. ix. p. 102 [1]; Monogr. Cassid. iv. p. 251 [2].

Hab. MEXICO [1 2], Guanajuato, Peras, Juquila (*Sallé*).

Specimens from Peras and Juquila, both in the State of Oaxaca, agree precisely with the type, which is here figured; those from Guanajuato are more or less immature. The short median streak on the disc of the prothorax behind is obliterated in four out of the eight specimens before me.

23. Physonota ovipennis. (Tab. IX. fig. 6, ♂.)

Ovate (♂) or oblong ovate (♀), rather convex, shining; dilute flavo-testaceous, the margins hyaline, the eyes and mouth black, the prothorax usually with a short fine blackish median streak before the base; the antennæ black, joints 2–5 testaceous beneath; beneath black, the prosternum, and sometimes the sides, narrowly, testaceous, the elytra with the base internally and the suture at the apex black; the legs testaceous. Antennæ extending to a little beyond the base of the prothorax; the third joint elongate, much longer than the fourth. Prothorax about twice as broad as long, feebly bisinuate at the base, with the median lobe truncate or slightly emarginate, the sides very abruptly and obliquely converging anteriorly, strongly rounded behind, the apex rounded; the margins broadly expanded, concave, and reticulate; the surface smooth. Elytra subcordate (♂) or ovate (♀), considerably wider than the prothorax in both sexes, broader and shorter in the male than in the female, rounded at the sides and rapidly narrowing from a little below the base, the apices distinctly produced; the humeri broadly rounded in the male, obtuse in the female; the margins deflexed and reticulate, broadly expanded anteriorly, rather narrowly posteriorly; the disc with widely scattered, very fine, subserially arranged punctures, the margins sparsely, irregularly punctate. Beneath smooth, the ventral segments with scattered fine punctures.

Length 9–11½, breadth 6½–7 millim.

Hab. MEXICO, Chilpancingo and Omilteme in Guerrero (*H. H. Smith*), Mochitlan in Guerrero (*Baron*).

Nine specimens. Closely allied to *P. humilis*, Boh., but of more ovate, more convex shape; the elytra in the male much wider than the prothorax, and in both sexes more rapidly narrowing posteriorly; the humeri are broadly rounded in the male.

24. **Physonota translucida.** (Tab. IX. fig. 7, ♂.)

Physonota translucida, Boh. Monogr. Cassid. ii. p. 225 [1], and iv. p. 252 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 102 [3].
Physonota flaveola, Boh. Monogr. Cassid. ii. p. 226 [4], and iv. p. 253 [5]; Cat. Col. Ins. Brit. Mus. ix. p. 102 [6].
Physonota plicata, Wag. Mittheil. Münch. ent. Ver. i. p. 61 [7].

Hab. Mexico [1–7] (*Sallé, ex coll. Sturm; coll. Baly*), Parada (*Sallé*), Amula in Guerrero (*H. H. Smith*).

Apparently confined to Central and Western Mexico. As in *P. attenuata*, the females are more elongate and have more attenuate elytra than in the males. The specimens (♂ ♀) labelled *P. translucida* and *P. flaveola*, Boh., in the Sallé collection, determined, I believe, by Boheman himself, certainly belong to one species. I have examined one of Boheman's types (♂) of *P. flaveola*, kindly communicated by the authorities of the Berlin Museum. The prothorax (as in some of the allied species) usually has an oblique fold extending across the expanded margin from the obtuse hind angles to the disc, a character not mentioned by Boheman.

A specimen from Parada, agreeing perfectly with one of Boheman's types of *P. flaveola* in the Berlin Museum, is figured.

25. **Physonota eucalypta.** (Tab. IX. fig. 8.)

Physonota eucalypta, Boh. Monogr. Cassid. iv. p. 252 [1].

Hab. British Honduras, R. Sarstoon (*Blancaneaux*); Guatemala (*Sallé*), Chiacam, Senahu, Chacoj, Sabo, San Joaquin, and San Gerónimo in Vera Paz, Aceituno (*Champion*), Coban (*Conradt*); Costa Rica [1].

This is a large species closely resembling *Platycycla deruta*, Boh.; but it is narrower than that insect, and has the elytra less deeply emarginate at the base, the base of the prothorax not nearly so obliquely truncate at the sides.

26. **Physonota maculiventris.** (Tab. IX. fig. 9, ♂.)

Physonota maculiventris, Boh. Monogr. Cassid. ii. p. 229 [1], and iv. 253 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 102 [3].

Hab. Mexico [1–3] (*coll. Baly*), Cordova (*Sallé*), Oaxaca (*Höge*), Chiapas (*Mus. Brit.*).

In this species the tibiæ are obtusely dilated at the apex, a peculiarity not mentioned by Boheman, though he gives a similar character for the Mexican *Omoplata maculicollis*.

27. **Physonota calcarata.** (Tab. IX. fig. 10, ♂.)

Omoplata calcarata, Boh. Monogr. Cassid. ii. p. 138[1], and iv. p. 226[2]; Cat. Col. Ins. Brit. Mus. ix. p. 90[3].

Physonota calcarata, Boh. Monogr. Cassid. ii. p. 227[4], and iv. p. 253[5]; Cat. Col. Ins. Brit. Mus. ix. p. 102[6].

Physonota spinipes, Boh. Monogr. Cassid. ii. p. 228[7], and iv. p. 253[8]; Cat. Col. Ins. Brit. Mus. ix. p. 102[9].

Hab. MEXICO[2 3 5 6] (*coll. Sommer*[1 4]; *coll. Baly*), Xucumanatlan in Guerrero (*H. H. Smith*), Yolos in Oaxaca (*Sallé*), Oaxaca[8 9] (*Deppe, in Mus. Berol.*[7]).

There can be little doubt that the above synonymy is correct. *P. spinipes* seems only to differ from *P. calcarata* in having the markings on the prothorax reduced in size —the median one in the form of a short vitta (instead of an anchor-shaped mark) and the lateral ones C-shaped. This is the only species of Cassididæ known to me in which the tibiæ are very broadly subangularly dilated at the apex.

PLATYCYCLA.

Platycycla, Boheman, Monogr. Cassid. ii. p. 240 (1854).

This genus contains but a single species, peculiar to Central America. It is closely allied to *Physonota*, especially to such species as *P. eucalypta*, *P. translucida*, &c., but differs from it in the more slender, filiform antennæ, joints 4–10 of which are relatively more elongate, and in its more circular shape; the elytra are also much more deeply emarginate at the base, and the prothorax is very obliquely truncate on either side behind.

1. **Platycycla deruta.**

Platycycla deruta, Boh. Monogr. Cassid. ii. p. 241, t. 5. figg. F, 1–5[1], and iv. p. 254[2]; Cat. Col. Ins. Brit. Mus. ix. p. 104[3].

Hab. MEXICO[1–3], San Andres Tuxtla and Playa Vicente, both in Vera Cruz (*Sallé*), Minatitlan in Vera Cruz (*Höge*), Teapa in Tabasco (*H. H. Smith*); GUATEMALA, Coban, Chacoj, Teleman, and San Gerónimo in Vera Paz (*Champion*), Panzos in Vera Paz (*Conradt*).

This fine species is not uncommon on the Atlantic slope of Guatemala and Southern Mexico.

EURYPEPLA.

Eurypepla, Boheman, Monogr. Cassid. ii. p. 236 (1854).

Three species are referred to this genus by Boheman, two from the Antilles and one from Yucatan.

1. **Eurypepla brevilineata.** (Tab. IX. fig. 11, ♂.)

Eurypepla brevilineata, Boh. Monogr. Cassid. ii. p. 238[1], and iv. p. 254[2]; Cat. Col. Ins. Brit. Mus. ix. p. 103[3].

Hab. MEXICO, Campeche in Yucatan [1-3] (*Sallé*).

We have received only a single (♂) specimen of this species, but I have seen several others. The humeri are less obtuse in the male than in the female, and they are slightly concave in front in the former sex.

CHERSINELLA.

Antennæ short, not reaching the base of the prothorax; joints 3 and 4 elongate, slender, 3 nearly twice as long as 2 and slightly longer than 4, 5 a little wider and shorter than 4, 6–11 thickened, much stouter than 5, 9 and 10 subtransverse, 11 nearly twice as long as 10, acuminate; 1–5 almost smooth and shining; 6–11 densely punctured and opaque. Prothorax nearly twice as broad as long, broadly expanded laterally and in front; the apex rounded and extending far beyond the head; the base with a produced, rather broad, obtuse median lobe, and thence to the obtuse hind angles subtruncate. Scutellum triangular, small. Elytra in the male about two and a half times as long as, and very much wider than, the prothorax, narrower and longer in the female, convex, very obtuse at the apex, subtruncate on either side at the base; the margins broadly expanded and the humeri very oblique in the male, narrower and with the humeri obtuse in the female. Claws broadly angularly dilated on the lower side at the base.

This genus is proposed for the Colombian *Cassida heteropunctata*, Boh., an insect that cannot possibly be retained in the genus *Cassida*. *Chersinella* closely approaches certain species of *Physonota* (such as *P. picticollis*, *P. maculiventris*, &c.); but it has the antennæ differently formed and the claws appendiculate. The humeri are not at all produced in front, being oblique in the male and obtuse in the female. The antennæ are short, and have the six outer joints thickened, the third and fourth elongate and slender.

Boheman states that *C. heteropunctata* has the facies of a *Chelymorpha*; it differs from that genus, however, in the laterally subtruncate base of the prothorax and elytra, and in the short antennæ.

1. **Chersinella heteropunctata.** (Tab. IX. fig. 12, ♂, var.)

Cassida heteropunctata, Boh. Monogr. Cassid. ii. p. 459[1], and iv. p. 343[2]; Cat. Col. Ins. Brit. Mus. ix. p. 141[3].

Hab. PANAMA, Tolé (*Champion*).—COLOMBIA [1-3].

A single male specimen from Tolé, differing from the type and the two varieties described in having a long {-shaped mark on the disc of each elytron, instead of some scattered irregular spots; it is like the var. *b*, but with the markings longitudinally confluent.

ISCHYROSONYX.

Ischyrosonyx, Chevrolat, Dej. Cat. 3rd edit. p. 394 (1837); Boheman, Monogr. Cassid. ii. p. 321.

The six representatives of this genus described by Boheman are all from Tropical South America—three from Colombia, and three from Brazil; an example of one of the Colombian species was obtained in Nicaragua by the late Mr. T. Belt. *Ischyrosonyx hospes*, Dohrn, from the Transvaal, has pectinated claws, and it therefore cannot belong to this genus, in which the claws are simple.

1. **Ischyrosonyx nigrosignata.** (Tab. IX. fig. 13.)

Ischyrosonyx nigrosignata, Boh. Monogr. Cassid. ii. p. 327 [1], and iv. p. 283 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 116 [3].

Hab. NICARAGUA, Chontales (*Belt*).—COLOMBIA [1-3].

CASSIDA.

Cassida, Linnæus, Syst. Nat. 12th edit. i. 2, p. 547 (1767) [1]; Boheman, Monogr. Cassid. ii. p. 329 (part.) [2]; Chapuis, Gen. Col. xi. p. 388 [3].

Boheman [2] placed a heterogeneous assemblage of species from all parts of the world under the name *Cassida*, including some (from the Old World) with pectinate claws, some with appendiculate claws, and some (the majority) with the claws simple; those with the claws pectinate have been transferred to *Aspidomorpha* by Chapuis [3]. Three out of the four species here recorded from within our limits have the claws angularly dilated on the lower side at the base, but it is inadvisable to separate them from *Cassida* at present; they bear much the same relation to *Cassida* as *Chirida* does to *Coptocycla*. Upwards of 250 species of *Cassida* have been described, about twenty only of which are from America (not more than seven of these inhabiting the United States), where the genus is replaced by *Coptocycla* and *Ctenochira*.

* *Elytra more or less convex.*

a. *Claws simple.*

1. **Cassida mexicana.** (Tab. IX. fig. 14.)

Oblong ovate, convex, shining; red or yellowish-red, the expanded margins of the prothorax and elytra dilute yellow, the scutellum more or less infuscate; the elytra with the basal edge, the suture very narrowly, and three elongate streaks—one on the third interstice about the middle, the other two on the eighth interstice (one beyond, the other before the middle)—dilute black; the antennæ testaceous, with the five apical joints black; beneath black; legs pitchy-red or piceous. Antennæ short, extending to a little beyond the base of the prothorax, joints 1–6 smooth and shining, 7–11 densely punctured and pubescent, 3–5 subequal, each longer than 2, 6 shorter than 5 (not longer than 2), 7–11 considerably thickened, 7–10 about as broad as long, 11 twice as long as 10, subacuminate. Prothorax nearly twice as broad as long, broadly dilated at the sides and in front, almost smooth. Scutellum large, triangular, acuminate behind, smooth. Elytra a little wider than, and about three times as long as, the prothorax, subparallel nearly to the middle, deeply sinuate-emarginate at the base; the disc with rows of rather coarse subapproximate punctures extending to the apex and a deep sutural stria, the interstices smooth, almost flat;

the margins rather narrowly expanded, becoming exceedingly narrow at the apex, smooth, the outer edge slightly reflexed; the humeri prominent but obtuse. Beneath smooth, shining, the metapleuræ rugosely punctured. Claws simple.

Length 5¾–6, breadth 4 millim.

Hab. MEXICO, Ventanas in Durango, Mexico city (*Höge*).

Two examples (probably both females). Closely allied to the North-American *C. nigripes*, Oliv., but smaller and narrower; the elytra not much wider than the prothorax, with the punctures coarser, the dilute blackish marks elongate (not rounded), and the margins much narrower at the apex.

2. **Cassida insculpta.**

Coptocycla insculpta, Boh. Monogr. Cassid. iii. p. 340 [1], and iv. p. 451 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 184 [3].

Hab. MEXICO (*Sallé*), Yucatan [2 3] (*Chevrolat* [1]), Temax in North Yucatan (*Gaumer*).

We have received two examples, one of which agrees perfectly with the type (now in the British Museum). *C. insculpta* is a close ally of the European *C. obsoleta*; the antennæ are formed as in typical *Cassidæ*.

b. *Claws angularly dilated at the base.*

3. **Cassida pallidula.** (Tab. IX. fig. 16.)

Cassida pallidula, Boh. Monogr. Cassid. ii. p. 457 [1], and iv. p. 342 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 141 [3].

Cassida texana, Crotch, Proc. Acad. Phil. 1873, p. 78 [4].

Hab. NORTH AMERICA, Texas [4].—MEXICO, Northern Sonora (*Morrison*), Juarez (*Cockerell*), Oaxaca [2 3] (*Deppe, in Mus. Berol.* [1]).

This insect is a very close ally of *C. insculpta*, Boh., from which it differs in the less expanded margins of the elytra and more prominent humeri. The antennæ are usually wholly testaceous, sometimes with one or more of the apical joints infuscate. Mr. Cockerell's specimens were collected at Juarez, on the Rio Grande, opposite El Paso.

** *Elytra tuberculate; claws angularly dilated at the base.*

4. **Cassida rugosa.** (Tab. IX. figg. 17; 17 *a*, profile.)

Cassida rugosa, Boh. Monogr. Cassid. ii. p. 472 [1], and iv. p. 344 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 142 [3].

Hab. MEXICO, Chilpancingo in Guerrero (*H. H. Smith*), Matamoros Izucar, Capulalpam, Yucatan [1–3] (*Sallé*), Temax in North Yucatan (*Gaumer*); GUATEMALA, San Gerónimo (*Champion*); HONDURAS [2] (*Dyson* [3]); NICARAGUA, Chontales (*Janson*).

Not uncommon in Mexico and Guatemala. The single specimen from Chontales has

the yellow transverse antemedian lateral patch on the elytra reduced to a small spot, and in one of the San Gerónimo examples it is entirely obsolete. *C. callosa*, Boh., from Texas, appears to be a very close ally of this species.

HYBOSA.

Hybosa, Boheman, Monogr. Cassid. iii. p. 1 (1855).

Eight species of this Tropical-American genus have been described, one only of which enters our region. *Hybosa* is chiefly distinguished by the base of the prothorax being strongly bisinuate on either side, with a broadly produced obtuse median lobe.

1. **Hybosa mellicula.** (Tab. IX. fig. 18, ♀.)

Hybosa mellicula, Boh. Monogr. Cassid. iv. p. 366[1]; Dohrn, Stett. ent. Zeit. 1883, p. 106[2].

Hab. Mexico (*coll. Baly*); Guatemala, Panzos in Vera Paz (*Conradt*); Nicaragua, Chontales (*Janson*).—Amazons [1 2].

The type in the Baly collection is a female; the male is rotundate, much less elongate. The four specimens before me from Central America include both sexes; the females agree perfectly with the type.

CHARIDOTIS.

Charidotis, Boheman, Monogr. Cassid. iii. p. 7 (1855) (part.).

The species here referred to *Charidotis* agree in the following particulars:—Antennæ short, not extending beyond the base of the prothorax; joint 3 very short, much shorter than, and not nearly so stout as, 2; joints 4–6 each much longer than 3, 7–11 stout, 8–10 not longer than broad. In the South-American *C. miniata*, placed by Boheman at the head of the genus, joints 4 and 5 are subequal, each twice as long as 3, the latter very short, and 6–11 are thickened. Boheman included various species under *Coptocycla*, such as *C. fahræi*, *C. circumducta*, *C. zonata*, &c., with an equally short third antennal joint; but these species have longer antennæ, with the joints subfiliform or gradually thickening outwardly. Sixty species of *Charidotis* have been described, all Tropical-American, the genus ranging as far north as the Mexican State of Vera Cruz. Nine species only are known to me from within our limits, all of which appear to be very rare. As understood here, several species placed by Boheman under *Charidotis* belong to *Coptocycla*, e. g. *C. circulifera* &c.

Prothorax and elytra not unicolorous.
  Margins of prothorax and elytra entirely yellow.
    Base of prothorax and disc of elytra sanguineous, the latter with large, transverse, smooth flavous callosities . . . . *pustulata*, n. sp.
    Disc of prothorax and elytra castaneous, the latter with small, subserially arranged, smooth flavous callosities . . . . *auroguttata*, Boh.

Disc of prothorax and elytra sanguineous, bordered with castaneous . . . . *flavomarginata*, n. sp.
Disc of prothorax and elytra black, the elytra with a common, transverse, reddish-yellow patch . . . . *erythrostigma*, n. sp.
Disc of prothorax and elytra brownish-yellow, the elytra bordered with castaneous . . . . *yucatanensis*, n. sp.
Margins of prothorax, and sometimes those of elytra at base and apex, yellow.
Surface shining, black or bronze-black.
Elytral interstices irregularly raised . . . . *frontalis*, n. sp.
Elytral interstices flat . . . . *seminulum*, Boh.
Surface opaque, blue-black . . . . *curtula*, Boh.
Prothorax and elytra flavo-testaceous, immaculate . . . . *rotundata*, Boh.

1. Charidotis pustulata. (Tab. IX. fig. 19.)

Short ovate, very convex, shining; dilute flavous, the expanded margins subhyaline, the prothorax with a narrow transverse patch at the base, widened at the middle, and the scutellum, sanguineous; the elytra with the disc sanguineous, except a common transverse patch before the middle (widening posteriorly), a transverse fascia at about one-third from the apex (widening outwardly), and the sides, which are flavous; the antennæ pale testaceous, the apical joint fuscous; the legs and underside testaceous. Antennæ short, not extending beyond the base of the prothorax, joint 3 very short, much shorter than, and not nearly so stout as, 2, 4 considerably longer than 3, 5 and 6 equal, each longer than 4, 7–11 stout, 8–10 as broad as long, 11 nearly twice as long as 10, acuminate. Prothorax broadly expanded at the sides and in front; the disc deeply obliquely grooved at the base on either side of the very broadly truncated median lobe, finely canaliculate in the middle behind; the surface smooth, the margins reticulate. Scutellum very large, smooth. Elytra a little wider than the prothorax at the base, deeply sinuate-emarginate in front, and with prominent subangular humeri; the disc very convex, bifoveate at the base, hollowed behind the prominent humeral callus, and abruptly declivous at the sides, with rows of very coarse deep punctures, interrupted by two large, transverse, smooth callosities—one before the middle, with a ramus extending outwards, the other in the form of a fascia at one-third from the apex,—the outer portion also smooth, the interstices narrow, smooth, and irregularly raised; the margins rather broadly expanded, becoming very narrow at the apex, smooth and reticulate, separated from the disc by a row of distantly placed foveæ.

Length $4\frac{2}{3}$–5, breadth 4 millim.

Hab. British Honduras, Belize (*Blancaneaux*); Guatemala, San Juan in Vera Paz (*Champion*).

Four specimens. Allied to *C. cinctella*, Boh., from Brazil, but with much larger flavous callosities on the elytra, the posterior one forming a transverse fascia, the outer portion of the disc smooth.

2. Charidotis auroguttata. (Tab. IX. fig. 20.)

Charidotis auroguttata, Boh. Monogr. Cassid. iii. p. 40[1], and iv. p. 379[2]; Cat. Col. Ins. Brit. Mus. ix. p. 152[3].

Hab. British Honduras, Belize (*Blancaneaux*); Guatemala, San Juan in Vera Paz (*Champion*).—Brazil[1-3]; Bolivia[1-3].

This insect has not hitherto been recorded from north of Brazil. In life, the numerous raised callosities on the elytra are of a brilliant metallic golden or golden-green, in contrast to the blackish or castaneous colour of the dorsum. We have received four specimens from within our limits.

3. **Charidotis flavomarginata.** (Tab. IX. fig. 21.)

Broadly elliptic, very convex, shining, sanguineous; the prothorax and elytra bordered with piceous along the outer part of the disc, their expanded margins dilute flavous and subhyaline; the antennæ, legs, and under surface (the inner half of the epipleura excepted) testaceous. Antennæ short, not extending beyond the base of the prothorax, joint 3 very short, much shorter than, and not nearly so stout as, 2, 4 very little longer than 3, 5 and 6 subequal, longer than 4, 7–11 stout, 8–10 as broad as long, 11 twice as long as 10, acuminate. Prothorax broadly dilated at the sides and in front; the disc deeply, obliquely grooved at the base on either side of the very broadly truncated median lobe, and with some scattered distinct punctures at the sides behind. Scutellum very large, smooth. Elytra about two and one third times as long as, and at the sides forming a continuous outline with, the prothorax, deeply sinuate-emarginate at the base, and with prominent subangular humeri; the disc very convex, bifoveate at the base, hollowed behind the prominent humeral callus, and rather abruptly declivous behind and at the sides, with rows of moderately coarse, not very closely placed punctures (which become finer towards the suture) extending to the apex, the interstices smooth and almost flat; the margins only moderately expanded, becoming very narrow at the apex, smooth, and reticulate, separated from the disc by a row of very deep foveæ.

Length $4\frac{1}{4}$–$4\frac{1}{3}$, breadth $3\frac{1}{2}$ millim.

Hab. Guatemala, Chacoj and La Tinta in Vera Paz (*Champion*).

Three examples, all from the lower part of the Polochic Valley. This small species is perhaps nearest allied to *C. erythrostigma*. It has the fourth joint of the antennæ very little longer than the third, it being shorter than in most of the allied forms.

4. **Charidotis erythrostigma.** (Tab. IX. fig. 23.)

Broadly elliptic, very convex, shining, black, the expanded margins of the prothorax and elytra dilute flavous and hyaline; the elytra with a common transverse yellowish-red patch before the middle—narrowing outwardly and reaching to the fifth interstice, and extending along the suture to the base; the legs and antennæ flavo-testaceous; the underside black, the ventral segments flavo-testaceous. Antennæ short, not extending beyond the base of the prothorax, joint 3 very short, much shorter than, and not nearly so stout as, 2, 4–6 subequal, each much longer than 3, 7–11 stout, 8–10 as broad as long, 11 twice as long as 10, acuminate. Prothorax broadly dilated and reticulate at the sides and in front; the disc deeply obliquely grooved at the base on either side of the very broadly truncated median lobe and with some scattered distinct punctures at the sides behind. Scutellum very large, almost smooth. Elytra about two and a half times the length of, and at the sides forming a continuous outline with, the prothorax, deeply sinuate-emarginate at the base, and with prominent subangular humeri: the disc very convex, bifoveate at the base, hollowed behind the prominent humeral callus, and somewhat abruptly declivous towards the apex and at the sides, with rows of closely placed, deep, rather coarse punctures extending to the apex, the interstices smooth; the margins only moderately expanded, becoming very narrow at the apex, smooth, and reticulate, separated from the disc by a row of very deep foveæ.

Length 5, breadth 4 millim.

Hab. Mexico, Cerro de Plumas (*Höge*).

One example only of this very distinct species has been received. It is allied to the Brazilian *C. rubrocincta* and *C. circumscripta*, Boh., from both of which it differs in the common transverse yellowish-red patch on the elytra, and in having the punctures

of the elytral series much more numerous. *C. cognata*, Boh., from Cayenne, has a very much larger dorsal patch and the margins very broadly expanded.

5. **Charidotis yucatanensis.** (Tab. IX. fig. 22.)

Subrotundate, very convex, shining, brownish-yellow, the elytra rather broadly bordered with castaneous along the outer part of the disc, their expanded margins and also those of the prothorax dilute sordid-yellow; the antennæ, legs, and under surface testaceous. Antennæ, prothorax, and scutellum as in *C. erythrostigma*. Elytra about two and a half times as long as, and at the sides forming a continuous outline with, the prothorax, deeply sinuate-emarginate at the base, and with prominent subacute humeri; the disc very convex, hollowed behind the humeral callus, and somewhat abruptly declivous behind and at the sides, with rows of coarse, deep, not very closely placed brownish punctures extending from the base to the apex, the interstices smooth and rather uneven; the margins moderately expanded, becoming very narrow at the apex, smooth and reticulate, separated from the disc by a row of deep foveæ.

Length 5, breadth 4 millim.

Hab. MEXICO, Temax in North Yucatan (*Gaumer*).

One example. Allied to *C. erythrostigma*, but with the elytra coarsely striate-punctate and the margins a little more expanded; the coloration is also very different, resembling that of various species of *Coptocycla* and *Ctenochira*.

6. **Charidotis frontalis.** (Tab. IX. fig. 24.)

Subrotundate, very convex, shining, bronze-black, the expanded anterior and lateral margins of the prothorax flavous and subhyaline; the antennæ and legs testaceous; beneath black, the metasternum castaneous, the ventral segments flavo-testaceous. Antennæ short, not extending beyond the base of the prothorax, joint 3 very short, much shorter than, and not nearly so stout as, 2, 4–6 subequal in length, each nearly twice as long as 3, 7–11 stout, 9 and 10 as broad as long, 11 twice as long as 10 and acuminate. Prothorax broadly expanded at the sides and in front; the disc deeply, obliquely grooved at the base on either side of the very broadly truncated median lobe, finely canaliculate in the middle behind, and with fine scattered punctures, which extend on to the expanded margin, the margins reticulate. Scutellum very large, almost smooth. Elytra about two and one third times as long as, and at the sides forming a continuous outline with, the prothorax, deeply sinuate-emarginate at the base, and with moderately prominent subangular humeri; the disc very convex, deeply bifoveate at the base, and abruptly declivous behind and at the sides, with interrupted rows of coarse deep punctures extending to the apex, the interstices smooth, the first to the sixth here and there strongly raised and transversely or obliquely connected with each other, the humeral callus prominent; the margins feebly expanded, becoming obsolete at the apex, smooth, separated from the disc by a row of deep foveæ.

Length $4\frac{1}{3}$, breadth $3\frac{1}{2}$ millim.

Hab. MEXICO, Temax in North Yucatan (*Gaumer*).

One specimen. A close ally of *C. seminulum* and *C. furva*, Boh., but easily distinguishable from either of these species by the irregularly, convexly raised interstices, the much coarser punctuation, the less expanded margins, and the brassy lustre of the elytra.

7. **Charidotis seminulum.** (Tab. IX. figg. 25, var.; 25 *a*, antenna.)

Charidotis seminulum, Boh. Monogr. Cassid. iii. p. 27 [1], and iv. p. 376 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 150 [3].

Hab. MEXICO (*Chevrolat* [1–3]); GUATEMALA, Sabo in Vera Paz (*Champion*).

Var. The margins of the elytra at the base and apex narrowly flavous.

Hab. GUATEMALA, San Gerónimo (*Champion*).

There is a Mexican specimen of this species in the British Museum from the Chevrolat collection, no doubt the type, and another in the Baly collection. We also have two of it from Guatemala—one with the elytra entirely black, the other with the elytral margins narrowly bordered with yellow at the base and apex. Boheman describes the elytra as black, with the shoulders narrowly margined with yellow. The South-American *C. furva*, Boh., is a closely allied form.

8. **Charidotis curtula.** (Tab. IX. fig. 26.)

Charidotis curtula, Boh. Monogr. Cassid. iv. p. 376[1].

Hab. MEXICO (*Sallé*[1]).

A very distinct species, easily known by its opaque, bluish-black upper surface, the prothorax with the anterior margin flavous and hyaline.

9. **Charidotis rotundata.**

Charidotis rotundata, Boh. Monogr. Cassid. iii. p. 53[1], and iv. p. 382[2]; Cat. Col. Ins. Brit. Mus. ix. p. 153[3].

Hab. ? MEXICO[2 3] (*Deppe, in mus. Berol.*[1]).—BRAZIL[1].

Boheman in his subsequent publications[2 3] omits the locality "Brazil" altogether; it is, however, more likely to be correct than 'Mexico," as the allied forms are all Brazilian.

COPTOCYCLA.

Coptocycla, Sect. I., Boheman, Monogr. Cassid. iii. p. 90 (1855), and iv. p. 390; Chapuis, Gen. Col. xi. p. 390.

Psalidonota, Boheman, Monogr. Cassid. iii. p. 81.

Chirida, Chapuis, Gen. Col. xi. p. 405 (1875).

No less than 376 species were included under *Coptocycla*, Sect. I., by Boheman; the remainder (93), belonging to his Section II., have the four hinder claws pectinate, and these have been separated by Chapuis under the generic name *Ctenochira*. Of the 376 species of Sect. I. it is probable that a very large number of the American species belong to *Chirida*, though two only (*C. cruciata*, Linn., and *C. elatior*, Boh., both from Tropical South America) were referred to it by Chapuis. Those species with the claws angularly dilated at the base belong to *Chirida*, and those with the claws simple to *Coptocycla*. The name *Chirida* will probably have to be adopted eventually, but it is not advisable to use it at present, as some of the species placed in *Cassida* by Boheman also have the claws angularly dilated *. Next to the form of the claws, the relative length of the third joint of the antennæ seems to afford a valuable character for grouping the large number of species of this genus, though it was not used by Boheman.

* On p. 177 *antea*, the sect. "*b*" is misplaced; it should include **Cassida insculpta**.

Coptocycla, after the exclusion of the species with pectinate claws, still includes many heterogeneous forms, some of which will have to be separated eventually. It is one of the most characteristic genera of Coleoptera in Tropical America, and includes a very large number of species, many of which are brilliantly metallic in life. Seventy-nine representatives are here recorded from within our limits, as against six from the United States, the species becoming more numerous southwards, where some of them may be said to swarm. The genus is very widely distributed, but has its headquarters in Tropical America.

The metamorphoses of two of the Mexican species, *C. opulenta* and *C. bifossulata* (*dubitabilis*), Boh., have been fully described and figured by Dr. E. Dugès (Ann. Soc. Ent. Belg. 1887, pp. 143–146, t. 2. figg. 1–13).

The annexed Table is added to assist in the identification of the Central-American species:—

Claws simple.
- Antennæ with the third joint elongate, almost or quite twice as long as the second (still longer in species 4 and 5).
  - Elytra very feebly emarginate at the base; the humeri not prominent; antennæ comparatively short and stout. Species large, resembling *Physonota* in shape . . . . Species 1–3.
  - Elytra more or less deeply sinuate-emarginate at the base.
    - Humeri moderately prominent.
      - Elytra gibbous, the margins translucent; antennæ elongate. Species large (=*Psalidonota*, Boh.) . . . . Species 4–7.
      - Elytra convex (somewhat gibbous in *C. orbiculata*).
        - The margins entirely translucent . . . . Species 8–18.
        - The margins with two transverse dark fasciæ . . . . Species 19–21.
        - The margins with a transverse dark fascia at the base only . . . Species 22–25.
    - Humeri very prominent (still more so in ♂).
      - Elytra gibbous; margins with a transverse dark fascia at the base . . Species 26.
      - Elytra convex; margins entirely translucent . . . . Species 27.
- Antennæ with the third joint not or very little longer than the second.
  - Elytra very feebly emarginate at the base; the humeri not prominent; the margins very broadly expanded to the apex, entirely translucent . . Species 28.
  - Elytra more or less deeply sinuate-emarginate at the base (more feebly in species 41–43); the margins narrowing posteriorly.
    - Antennæ comparatively stout; elytral margins translucent . . . . . Species 29.
    - Antennæ slender.
      - Elytra gibbous, very obtuse behind; the margins with two broad curved dark fasciæ, partly enclosing an oblong translucent space . . . Species 30.
      - Elytra convex.
        - The margins entirely translucent; punctuation of disc fine or moderately fine . . . . Species 31–40.

The margins with two transverse dark fasciæ; punctuation of disc coarse . . . . Species 41.
The margins with a transverse dark fascia beyond the middle only; punctuation of disc coarse . . . . Species 42, 43.
Antennæ with the third joint shorter than the second; elytra sinuate-emarginate at the base, the margins hyaline.
Antennæ comparatively short . . . . Species 44, 45.
Antennæ elongate . . . . Species 46–48.
Claws angularly dilated at the base; elytra sinuate-emarginate at the base, with more or less prominent humeri (= *Chirida*, Chap.).
Antennæ with the third joint elongate, as long as the fourth.
Elytra more or less gibbous.
The disc tuberculate posteriorly.
The margins with two transverse dark fasciæ . . . . Species 49, 50.
The margins with a transverse dark fascia at the base only . . . . Species 51.
The disc not tuberculate posteriorly.
The margins with a large oblong translucent space . . . . Species 52.
The margins with a transverse fascia at the base, translucent beyond . Species 53.
The margins with a short space before the middle translucent (sometimes continued to the apex) . . . . Species 54.
Elytra convex.
The margins entirely translucent . . . . Species 55–63.
The margins with a large oblong translucent space . . . . Species 64, 65.
Antennæ with the third joint not or very little longer than the second.
Elytra gibbous.
The margins with two transverse dark fasciæ (not reaching the exterior limb) . . . . Species 66.
The margins with a transverse dark fascia at the base only . . . . Species 67.
Elytra convex.
The margins entirely translucent . . . . Species 68–72.
The margins with a sinuous dark stripe extending from the base to the middle . . . . Species 73.
The margins with a transverse dark fascia at the base, and a curved mark (sometimes obsolete) about the middle . . . . Species 74.
The margins with a more or less distinct transverse fascia at the base, translucent beyond . . . . Species 75–79.

1. **Coptocycla tripartita.** (Tab. IX. fig. 3, ♂.)

♂. Short ovate, broad, moderately convex, glabrous, shining; black, the expanded margins of the prothorax flavo-hyaline; the elytra each with an exceedingly large, transverse, dilute flavous patch before the middle—deeply excised in the centre behind, and extending from near the suture almost to the outer margin, with a ramus on the disc extending to the base (leaving a common heart-shaped scutellar patch); the antennæ black, with the joints 2–4 testaceous beneath; the legs and underside black. Antennæ moderately stout, joints 1–4 smooth and shining, 3 more than twice as long as 2, and a little longer than 4, joints 5–11 thickened, densely punctured, and pubescent, 4–10 subequal in length. Prothorax twice as broad as long, very broadly expanded at the sides and in front, the base deeply sinuate on either side of

the broad, truncate median lobe, the disc deeply foveate in the middle before the base, the surface smooth, the margins concave in front. Elytra wider than, and nearly three times as long as, the prothorax, rounded at the sides, very obtuse behind, and with rounded humeri; the disc moderately convex, hollowed behind the humeral callus, with fine, deep, very widely scattered punctures, some of which form a row near the suture, and a deep sutural stria; the margins very broadly expanded, becoming narrow at the apex, with a few scattered punctures, separated from the disc by a row of coarser, somewhat closely placed impressions. Beneath almost smooth; the prosternum not sulcate. Claws simple.

Length 12¼, breadth 10¾ millim.

Hab. NICARAGUA, Chontales (*Janson*).

One specimen. This species is very closely allied to the Amazonian *C. speculata*, Boh., the type (♀) of which is contained in the Baly collection; but differs from it in having the scattered punctures on the elytra finer and less numerous, and not black, those along the outer limit of the disc more closely placed. The elytra are very similarly coloured in the two species; the prothorax, however, has the broadly expanded margins flavous. *C. bifenestra*, Boh., from Brazil, is another allied form.

2. **Coptocycla nigropunctata.** (Tab. IX. fig. 2, ♂, var.)

Coptocycla nigropunctata, Wag. Mittheil. Münch. ent. Ver. v. p. 51[1].

Hab. CENTRAL AMERICA[1]; PANAMA, Bugaba (*Champion*).

A single specimen from Chiriqui no doubt represents a variety of this species. It has the elytra sanguineous, with the suture and base, the exterior limb very narrowly, and the apical fifth, black, the disc with widely scattered coarse black punctures, a few of which are present on the margins; the prothorax with the disc black, with an angular projection extending from it in the middle in front, and a transverse ramus at the sides.

3. **Coptocycla wagneri.** (Tab. IX. fig. 1.)

Coptocycla wagneri, Boh. Monogr. Cassid. iv. p. 391[1].

Hab. COSTA RICA[1].

The type of this species, which we figure, is contained in the Baly collection. This and the preceding species differ from typical *Coptocycla* in having the elytra less deeply emarginate at the base, with the humeri not prominent in front.

4. **Coptocycla leprosa.** (Tab. X. figg. 1, ♀; 1 *a*, profile.)

Psalidonota leprosa, Boh. Monogr. Cassid. iii. p. 86[1], and iv. p. 389[2]; Cat. Col. Ins. Brit. Mus. ix. p. 157[3].

Hab. MEXICO[1 2] (*Sallé, ex coll. Sturm*), Ventanas in Durango, Huetamo in Michoacan, Iguala and Acapulco in Guerrero, Tapachula in Chiapas (*Höge*), Mescala in Guerrero (*H. H. Smith*), Tuxtla (*Sallé*); BRITISH HONDURAS, R. Hondo (*Blancaneaux*); GUATEMALA, Panzos, Teleman, and San Juan in Vera Paz, Capetillo, Zapote, Pantaleon, Cerro

Zunil, El Reposo (*Champion*); NICARAGUA, Chontales (*Belt*, *Janson*); COSTA RICA (*Rogers*, *Van Patten*); PANAMA, Chiriqui (*Ribbe*), Bugaba, Volcan de Chiriqui, David, Taboga I. (*Champion*), Panama city (*Walker*).

A common insect in Central America, ranging from the Mexican State of Durango right down to Panama, and probably extending into the northern parts of South America. *C. leprosa* is doubtfully recorded by Boheman [3] as from Brazil.

The rows of coarse punctures on the elytra are interrupted beyond the middle by an oblique, smooth, flavous space, which becomes much wider externally, and is much more raised in some specimens than in others. The elytra have an abrupt, strongly raised, transverse elevation across the suture below the base, this and a spot on the humeral callus being usually sanguineous or dilute castaneous. The antennæ are very elongate and filiform, the third joint nearly three times as long as the second.

We figure a specimen from Chontales, agreeing perfectly with the (somewhat discoloured) type.

5. **Coptocycla dorsoplagiata.** (Tab. X. figg. 5, ♂; 5 *a*, profile; 5 *b*, antenna.)

Rotundate, convex, dilute flavo-testaceous, shining; the elytra flavous, with the suture narrowly, a transverse spot at the summit of the post-basal elevation, the punctures on a broad space between it and the apex of the disc (widened anteriorly and posteriorly), and the fourth to the sixth rows of punctures to about one third from the base, castaneous or dilute castaneous; the antennæ testaceous, with the apical three joints partly or entirely black; the legs and under surface testaceous. Antennæ very elongate, slender, filiform, joints 3–10 elongate and subequal, 3 more than twice as long as 2. Prothorax subtrapezoidal, the base deeply sinuate on either side of broad median lobe and abruptly and obliquely truncated laterally, the apex rounded; broadly expanded, reticulate, and subhyaline in front and at the sides; the surface almost smooth, the disc obsoletely canaliculate. Elytra very much wider than, and about three times as long as, the prothorax, conjointly rounded at the apex in the female, more obtuse behind in the male, very deeply sinuate-emarginate at the base, with rounded prominent humeri; the disc convex, transversely gibbous below the base, and excavate on either side of the suture before this, with rows of very coarse deep punctures, which are interrupted before the middle by a >-shaped smooth elevation extending from the post-basal elevation outwards, the punctures themselves crowded upon a broad space between this and the apex and remote upon the rest of the surface, the interstices smooth and uneven; the margins exceedingly broadly expanded, becoming narrow at the apex, smooth, reticulate, and subhyaline, separated from the disc by a row of deep punctures, and transversely plicate internally a little before the middle. Claws simple.

Length 10–10½, breadth 9½–10½ millim.

Hab. MEXICO (*Mus. Brit.*); GUATEMALA, Chacoj in Vera Paz, Zapote (*Champion*); NICARAGUA, Chontales (*Belt*); COSTA RICA (*Van Patten*).

Six examples. This species is allied to the Cuban *C. dorsopunctata* (Boh.) (and the Mexican specimen referred to that species by Boheman no doubt belongs here); but differs constantly from it in having the crowded castaneous punctures limited to a narrower space on the elytra, the sparsely punctured flavous lateral spaces being much more extended. It differs from *C. leprosa* in having the elytra less gibbous, and the rows of punctures not interrupted beyond the middle by a transverse, smooth, irregular fascia; and from *C. contempta* by the less gibbous elytra and smooth margins.

6. **Coptocycla marmorata.** (Tab. X. figg. 2, ♀; 2 *a*, profile.)

Subrotundate (♂), broad oval (♀), convex, dilute flavo-testaceous, shining; the elytra with the suture, the humeral callus, the punctures, and some scattered spots and markings castaneous or rufo-castaneous; the legs and antennæ testaceous or rufo-testaceous; the body beneath black, with the sides testaceous, the abdomen testaceous or rufo-testaceous, the segments broadly infuscate or black in the middle. Antennæ elongate, slender, filiform, the apical five joints slightly thickened, joint 3 twice as long as 2, 3–11 subequal in length. Prothorax as in *C. dorsoplagiata*. Elytra very much wider than, and about three times as long as, the prothorax, conjointly rounded at the apex in both sexes, very deeply sinuate-emarginate at the base, with prominent obtuse humeri; the disc convex, feebly transversely gibbous below the base, and excavate on either side of the suture before this, with rows of very coarse deep punctures, which are interrupted by a >-shaped smooth elevation extending from the post-basal elevation outwards and by various oblique or transverse raised spaces which here and there connect the interstices, the latter smooth and very uneven; the margins moderately expanded, becoming narrow at the apex, smooth, reticulate, and subhyaline, separated from the disc by a row of deep punctures, and transversely plicate internally a little before the middle. Claws simple.

Length 9–9½, breadth 8 millim.

Hab. Mexico, Venta de Zopilote and Mescala, both in Guerrero (*H. H. Smith*).

Three specimens. Allied to *C. leprosa*, but smaller; the elytra feebly gibbous, with less expanded margins, the interstices here and there connected by strongly raised oblique or transverse elevations; the body beneath partly black.

7. **Coptocycla rufonotata.**

Rotundate, convex, dilute flavo-testaceous, shining; the elytra with a short streak on the humeral callus, the summit of the post-basal elevation, and the punctures rufo-castaneous; the antennæ, legs, and under surface flavo-testaceous. Antennæ and prothorax as in *C. dorsoplagiata*, the prothorax obsoletely canaliculate at the base only. Elytra one half wider than, and three times as long as, the prothorax, conjointly rounded at the apex, very deeply sinuate-emarginate at the base, with prominent rounded humeri; the disc convex, feebly transversely gibbous below the base, and moderately excavate on either side of the suture before this, deeply foveate in the centre before the middle, and with rows of coarse deep punctures, which are interrupted (the sutural row excepted) by slightly raised smooth spaces extending outwards and downwards from the post-basal elevation, and by a broad, slightly raised, smooth, impunctate, post-median fascia, the latter widened externally and extending forwards to the ante-median marginal plica and posteriorly to the apex (enclosing a punctured ante-apical triangular space near the suture), the interstices smooth; the margins exceedingly broadly expanded, becoming narrower (though still wide) at the apex, smooth, reticulate, and subhyaline, separated from the disc by a row of rather fine punctures, and transversely plicate a little before the middle. Claws simple.

Length 10½, breadth 10 millim.

Hab. Costa Rica (*Gabb, in coll. Janson*).

One specimen, evidently of the male sex. This insect resembles *C. leprosa*, from which it may be known by the elytra being feebly gibbous, more broadly margined at the apex, and with the rows of punctures interrupted posteriorly by a very large, smooth, slightly raised, impunctate space, the latter obliquely cut off in front and enclosing a triangular punctured space on either side of the suture before the apex.

8. **Coptocycla orbiculata.** (Tab. X. fig. 3.)

Almost circular, very convex, shining, flavo-testaceous; the elytra with a very broad, indeterminate, dilute olivaceous annulus—extending round the outer part of the disc and reaching the suture at the base, —which is indistinctly bordered within and without with yellow, and encloses a common dilute ferruginous patch at the middle and a smaller one near the apex, these latter reticulated with flavous and narrowing outwardly, the anterior one with a small flavous spot in the centre, the suture narrowly ferruginous; the antennæ and legs testaceous; the under surface black, with the sides and the abdomen flavo-testaceous. Antennæ rather short, comparatively stout, thickening outwardly, joints 3 and 4 equal in length, 3 nearly twice as long as 2. Prothorax subtriangular in shape, the base very feebly sinuate and oblique on either side of the median lobe; the disc smooth, transversely depressed in the middle at the base; the margins broadly expanded laterally and in front, subhyaline, and reticulate. Elytra circular, forming almost a continuous outline with the prothorax and deeply emarginate at the base for its reception, with rather sharp humeri; the disc very convex, somewhat gibbous anteriorly, with rows of widely separated, rather coarse, deep punctures, which become much finer at the base and almost obsolete beyond the middle (the sutural row excepted), the interstices smooth and flat; the margins greatly expanded, becoming narrower at the apex, smooth, reticulate, and subhyaline, separated from the disc by a row of deep foveæ. Claws simple.

Length 6¼, breadth 6 millim.

Hab. PANAMA, Bugaba (*Champion*).

One example only of this curious species has been obtained. It is perhaps nearest allied to *C. placida*, Boh., from Cayenne. The elytral markings are perhaps partly due to discoloration. The general outline is almost circular, resembling *Platycycla*, the elytra being deeply emarginate at the base for the reception of the prothorax.

9. **Coptocycla sordida.** (Tab. X. figg. 4, ♀; 4 *a*, antenna.)

Coptocycla sordida, Boh. Monogr. Cassid. iii. p. 326[1], and iv. p. 447[2]; Cat. Col. Ins. Brit. Mus. ix. p. 182[3].

Hab. MEXICO[1-3] (*Mus. Brit., ex Chevrolat*); BRITISH HONDURAS, R. Hondo (*Blancaneaux*); GUATEMALA (*Scherzer, in coll. Baly*), Panzos, Teleman, La Tinta, and Chacoj in Vera Paz (*Champion*).

Apparently confined to the lower parts of the Atlantic slope. This species may be known by its convex, subrotundate shape; the elytra very deeply emarginate at the base, with the sides forming almost a continuous outline with the prothorax; the antennæ rather stout, and extending very little beyond the base of the prothorax, the third and fourth joints equal in length, each very much longer than the second. The females, as usual, are more elongate than the males.

The type from the Stockholm Museum is figured.

10. **Coptocycla azteca.** (Tab. IX. fig. 15, ♀.)

Short ovate (♂), ovate (♀), convex, shining, rufo-testaceous or testaceous, the expanded margins of the prothorax dilute yellow, the scutellum more or less infuscate, the elytra each with three large dilute fuscous spots—one, rounded, before the middle, on the fourth and fifth interstices, one, oblong, below the humeral callus, and one, oblique, between the seventh and ninth interstices near the apex; the antennæ testaceous,

with the apical four joints piceous or black; beneath black, the sides of the ventral segments sometimes rufo-testaceous; the legs varying in colour from rufo-testaceous to nearly black. Antennæ scarcely extending beyond the base of the prothorax, with joints 7–11 rather stout, 3 and 4 elongate, subequal, each nearly twice as long as 2, 5 and 6 each shorter than 4, 8–10 almost as broad as long. Prothorax nearly twice as broad as long, moderately expanded at the sides and in front, deeply sinuate at the base on either side of the broadly truncated median lobe, the latter unimpressed, the surface almost smooth. Elytra considerably wider than the prothorax, broader in the male than in the female, subparallel nearly to the middle, deeply sinuate-emarginate at the base: the disc with rows of rather fine subapproximate punctures extending to the apex and a deep sutural stria, the interstices smooth, flat; the margins moderately expanded, becoming very narrow at the apex, deflexed, smooth, the outer edge scarcely thickened; the humeri anteriorly prominent, but obtuse. Claws simple.

Length 5½–6½, breadth 4–4½ millim.

Hab. MEXICO, Puebla, Matamoros Izucar (*Sallé*).

Two examples. *C. azteca* is intermediate as it were between *C. trisignata*, Boh., and its allies, and the North-American *Cassida nigripes*, Oliv. In the form of the antennæ it agrees better with *Coptocycla* than with *Cassida*. It may be known from *C. nigripes* by its much smaller size, and by the expanded margins of the elytra being much narrower at the apex, more deflexed, and with the exterior edge scarcely thickened. The disc of the elytra is very faintly impressed between the anterior spots, but it cannot be described as foveate. The spots are larger than in *C. trisignata* and differently placed.

11. **Coptocycla annulus.**

Cassida annulus, Fabr. Spec. Ins. i. p. 109 (1781)[1]; Gmelin, Syst. Nat. i. 4, p. 1637[2].
Coptocycla annulus, Boh. Monogr. Cassid. iii. p. 236[3], and iv. p. 430[4]; Cat. Col. Ins. Brit. Mus. ix. p. 173[5].
Cassida circularis, Oliv. Ent. vi. no. 97, p. 970, t. 6. f. 98[6].
Coptocycla circularis (Oliv.), Dej. Cat. 3rd edit. p. 396[7].
Coptocycla circulifera, Dej. Cat. loc. cit.[8]

Hab. MEXICO, Playa Vicente, San Andres Tuxtla (*Sallé*), Teapa in Tabasco (*H. H. Smith*); GUATEMALA[4 5], Panzos, Teleman, Senahu, and San Juan in Vera Paz, Zapote (*Champion*); NICARAGUA, Chontales (*Belt, Janson*); PANAMA (*Boucard*), Bugaba, Volcan de Chiriqui, Caldera, David (*Champion*), Chiriqui (*Ribbe*).—COLOMBIA[3 4 5]; GUIANA, Cayenne[1–8]; ECUADOR; AMAZONS, Pará[3], Ega; BOLIVIA[4 5].

A widely distributed and rather common Tropical-American insect. In this species the yellow annulus of the elytra is small, not reaching the middle, and followed by a similarly coloured curved fascia, the rest of the disc, the apex excepted, being black, the prothorax also with a black basal patch. The antennæ are very elongate and slender, the third joint elongate, joints 6–11 piceous or black.

12. **Coptocycla wesmaeli.** (Tab. X. figg. 6; 7, var.; 8, var. *puerilis*.)

Coptocycla wesmaeli, Boh. Monogr. Cassid. iii. p. 202[1], and iv. p. 421[2]; Cat. Col. Ins. Brit. Mus. ix. p. 169[3].

Hab. MEXICO[1–3], Cordova (*Sallé*), Atoyac (*H. H. Smith*), Misantla, Cerro de Plumas, Tapachula (*Höge*); GUATEMALA, Purula, Panima, and Chacoj in Vera Paz, Zapote (*Champion*).

Var. *α*. The elytra with the disc almost to its outer limit black, stained with ferruginous before the apex, and sometimes indeterminately ferruginous towards the base.

Coptocycla wesmaeli, var. *a*, Boh. Monogr. Cassid. iv. p. 421[4].
Coptocycla scutigerula, Boh. loc. cit. p. 424[5].

Hab. MEXICO[4], Cordova (*Sallé*), Cerro de Plumas (*Höge*); GUATEMALA (*Scherzer*, *in coll. Baly*[5]).

Var. *β*. The elytra as in *α*, but with a small oblong spot on the suture a little below the base, and a common transverse lunate mark about the middle, yellow. (Fig. 7.)

Hab. MEXICO, Cerro de Plumas (*Höge*).

Var. *γ*. The elytra with the disc castaneous, with a transverse sutural patch before the middle, and the sides anteriorly, piceous.

Coptocycla puerilis, var. *b*, Boh. Monogr. Cassid. iv. p. 447[6].

Hab. MEXICO, Playa Vicente (*Sallé*[6]).

Var. *δ*. The transverse patch at the base of the prothorax smaller than in the type, and emarginate on either side in front, sometimes obsolete; the black oblong annulus on the elytra almost obliterated, represented by a slender longitudinal streak on the outer part of the disc, which only extends to about the middle; the ante-median sutural spot reduced in size, and sometimes divided at the suture. (Fig. 8.)

Coptocycla puerilis, Boh. Monogr. Cassid. iv. p. 447[7].

Hab. MEXICO, Playa Vicente, Cordova, San Andres Tuxtla (*Sallé*), Atoyac in Vera Cruz (*H. H. Smith*), Cerro de Plumas, Tapachula (*Höge*); GUATEMALA (*coll. Baly*[7]), Panima in Vera Paz (*Champion*).

Var. *ε*. The elytra as in *δ*, but with the sutural spot obsolete.

Coptocycla puerilis, var. *a*, Boh. loc. cit.[8]

Hab. GUATEMALA (*coll. Baly*[8]).

This variable species has been described under three different names by Boheman, *C. wesmaeli* and *C. scutigerula* being separated from *C. puerilis* by more than one hundred species in his monograph. The types of all three forms are before me, and they certainly belong to one and the same species. *C. wesmaeli*, var. *a*, Boh., and *C. scutigerula* do not differ in any way from each other; *C. puerilis* has the black annulus in great part obliterated. Some specimens from Misantla and Tapachula are perfectly intermediate between *C. wesmaeli* and *C. puerilis*, the annulus being distinctly outlined, but faint, on the apical half of the elytra. The third joint of the antennæ is elongate.

Of the forty-nine specimens before me, thirty-two are typical *wesmaeli*, three belong to the var. α (*scutigerula*), one each to the vars. β, γ, and ε, and eleven to the var. δ (*puerilis*). We figure a typical *wesmaeli* from Zapote, the var. β from Cerro de Plumas, and the var. δ (*puerilis*) from Cordova.

13. **Coptocycla ephippiata.** (Tab. X. figg. 9; 10, var.)

Coptocycla ephippiata, Boh. Monogr. Cassid. iii. p. 214[1], and iv. p. 425[2]; Cat. Col. Ins. Brit. Mus. ix. p. 170[3].

Hab. MEXICO[1-3], Oaxaca (*Sallé*); BRITISH HONDURAS, R. Hondo (*Blancaneaux*); GUATEMALA, Cerro Zunil, San Gerónimo (*Champion*).

I have seen nine examples of this insect. The common dorsal patch on the elytra, which extends to a little beyond the middle, and is continued for some distance along the suture towards the apex, varies in colour from sanguineous or castaneous to black (or black, with a spot on the humeral callus, or the outer edge, sanguineous), and it is usually marked with a yellow or brownish oblique spot near the suture before the middle; in one specimen (fig. 10) from Cerro Zunil this mark is <-shaped, and nearly meets the one on the opposite elytron at the suture. The elytra are rather coarsely seriate-punctate, the punctures, as usual, becoming almost obsolete on the flavous apical portion; the disc (as in *C. amœna* &c.) is deeply foveate before the middle. The third joint of the antennæ is much longer than the second.

14. **Coptocycla amœna.** (Tab. X. fig. 11.)

Coptocycla amœna, Boh. Monogr. Cassid. iii. p. 189[1], and iv. p. 416[2]; Cat. Col. Ins. Brit. Mus. ix. p. 168[3].

Hab. MEXICO, Pinos Altos in Chihuahua (*Buchan-Hepburn*), Ventanas in Durango, Colima city, Cuernavaca in Morelos, Jalapa and Misantla in Vera Cruz, Tapachula in Chiapas (*Höge*), Chilpancingo in Guerrero (*Höge*, *H. H. Smith*), Guanajuato, Juquila (*Sallé*); GUATEMALA[1-3] (*Sallé*), San Gerónimo, Dueñas, Capetillo, Guatemala city, Aceituno (*Champion*); COSTA RICA (*Van Patten*); PANAMA, Volcan de Chiriqui (*Champion*).

A common insect on the central plateau of Guatemala and Mexico; it ranges from Northern Mexico right down to the State of Panama, but becomes rarer southwards. The narrow annulus is usually sanguineous or dilute castaneous; but in some specimens it is bordered externally with black and in others it is partly obliterated. In this and the following three species the elytra are deeply foveate on the disc before the middle, and the third joint of the antennæ is much longer than the second. We figure a specimen from Aceituno.

15. **Coptocycla opulenta.** (Tab. X. fig. 12.)

Coptocycla opulenta, Boh. Monogr. Cassid. iii. p. 191[1], and iv. p. 416[2]; Cat. Col. Ins. Brit. Mus. ix. p. 168[3].

Hab. MEXICO[1-3], Cordova (*Sallé*), Misantla, Jalapa (*Höge*); GUATEMALA, Cerro Zunil (*Champion*).

This species is extremely closely allied to *C. amœna*, Boh., from which it differs in the very much broader annulus of the elytra, with the enclosed flavous space more finely and more remotely seriate-punctate; it is also smaller. Boheman's description must have been made from a light-coloured example: in most of the numerous specimens before me the annulus is bordered externally with black (not entirely sanguineous); and the sutural stripe (as in *C. amœna*) is dilated below the base, forming a common ovate spot, which is sometimes partly or entirely black. The third joint of the antennæ is elongate. A specimen from Misantla is figured. The metamorphoses of this species have been described and figured by Dr. E. Dugès (Ann. Soc. Ent. Belg. 1887, pp. 145, 146, t. 2. figg. 11–13), who states that it lives upon *Ipomœa murucoides* *.

16. **Coptocycla tricolorata.** (Tab. X. fig. 13.)

Subrotundate, convex, dilute flavous, shining, the margins subhyaline; the eyes black; the prothorax with a rather narrow, transverse, black or sanguineous patch at the base; the scutellum sanguineous; the elytra with a very broad annulus—sanguineous or castaneous, and bordered externally to a greater or less extent with black, sometimes almost entirely sanguineous—reaching to beyond the middle, obliquely truncate on either side behind, and extending some distance along the suture towards the apex, and enclosing a common rounded flavous patch, which is sometimes divided by a very narrow dilute sanguineous sutural stripe; the antennæ flavous, with the apical joint slightly infuscate at the tip; the legs and under surface flavous. Antennæ moderately long, slender, the apical five joints a little thickened, joint 3 much longer than 2. Prothorax about twice as broad as long, broadly expanded and reticulate at the sides and in front, smooth, the disc obsoletely canaliculate before the base and very faintly depressed on either side of the median lobe. Elytra nearly three times the length of the prothorax, and much wider than it, deeply sinuate-emarginate at the base, conjointly rounded at the apex, with prominent humeri; the disc convex, deeply foveate before the middle, and hollowed at the sides behind the humeral callus, with a deep sutural stria posteriorly, rather remotely seriate-punctate, the punctures fine towards the suture, coarse and deep at the sides, and almost obsolete on the flavous apical portion, the interstices smooth and flat; the margins very broadly expanded, becoming gradually narrower towards the apex, smooth and reticulate, separated from the disc by a row of closely placed foveæ. Claws simple.

Length $5\frac{3}{4}$–$6\frac{1}{4}$, breadth $4\frac{3}{4}$–$5\frac{1}{2}$ millim.

Hab. BRITISH HONDURAS, R. Hondo (*Blancaneaux*); NICARAGUA, Chontales (*Belt*, *Janson*).

Ten specimens. This insect is very closely allied to, and perhaps only a variety of, *C. opulenta*, Boh.; from which it differs in having the discoidal flavous patch on the elytra entirely yellow, or with the suture, at most (even in the darkest specimens), very

* *Cf.* Biol. Centr.-Am., Botany, ii. p. 390, t. 61.

narrowly edged with sanguineous, the punctures on the outer part of the disc coarser and more remote from each other. A specimen from Rio Hondo is figured.

17. **Coptocycla atalanta.** (Tab. X. fig. 14.)

Coptocycla atalanta, Boh. Monogr. Cassid. iv. p. 416[1].

Hab. Mexico, San Andres Tuxtla and Playa Vicente, both in Vera Cruz (*Sallé*[1]), Misantla (*Höge*), Teapa in Tabasco (*H. H. Smith*); British Honduras, R. Hondo (*Blancaneaux*); Guatemala, Senahu in Vera Paz (*Champion*).

Apparently confined to the Atlantic slope. This species again is closely allied to *C. opulenta*, Boh.; but it is smaller, with the annulus narrower (sanguineous, bordered externally with black), and the suture narrowly sanguineous nearly to the apex, the sutural stripe not ovately dilated below the base. The third joint of the antennæ is elongate. We figure a specimen from Misantla.

18. **Coptocycla extensa.** (Tab. X. fig. 15, ♀.)

Coptocycla extensa, Boh. Monogr. Cassid. iii. p. 261[1], and iv. p. 435[2]; Cat. Col. Ins. Brit. Mus. ix. p. 175[3].

Var. *β*. The elytra with the disc testaceous or flavo-testaceous.

Hab. Mexico[1–3] (*coll. Oberthür*), Teapa in Tabasco (*H. H. Smith*), Temax in North Yucatan (*Gaumer*), Yucatan (*coll. Baly*).

Sent in plenty from Yucatan, about one-third of the specimens belonging to the var. *a* of Boheman—that is to say, with the disc of the elytra fusco-testaceous or castaneous, without distinct yellow markings.

19. **Coptocycla zetterstedti.** (Tab. X. fig. 16, ♂.)

Coptocycla zetterstedti, Boh. Monogr. Cassid. iii. p. 303[1], and iv. p. 443[2]; Cat. Col. Ins. Brit. Mus. ix. p. 180[3].

Hab. Mexico, Vera Cruz, Panistlahuaca (*Sallé*), Cordova (*Sallé, Höge*), Acapulco, Misantla, Tapachula (*Höge*).

Not uncommon at Cordova and elsewhere in the Mexican State of Vera Cruz. The antennæ are elongate and slender, the third joint nearly twice as long as the second. The single specimen (immature) received from Tapachula has the prothorax almost immaculate. Our figure is taken from a male example from Cordova.

20. **Coptocycla decussata.**

Coptocycla decussata, Boh. Monogr. Cassid. iii. p. 305[1], and iv. p. 443[2]; Cat. Col. Ins. Brit. Mus. ix. p. 180[3].

"Subrotundata, modice convexa, flava, nitida; antennis articulis duobus ultimis nigro-fuscis; prothorace subtilissime, subremote punctulato, antice late rotundato, pone medium maculis tribus parvis, transverse

positis, nigro-fuscis; elytris sat crebre, mediocriter striato-punctatis, sutura vittaque dorso inæquali, nigris, hac maculis nonnullis flavis, elevatis variegata, ramulum anticum et posticum concolorem in marginem emittente; humeris subprominulis, obtusis.—Long. 7, lat. 6 millim."

Hab. MEXICO [2] [3] (*Mus. Paris* [1]).

We have not received an example of this insect. It is placed next to *C. zetterstedti* by Boheman.

21. **Coptocycla insubida.** (Tab. X. fig. 17, ♀.)

Coptocycla insubida, Boh. Monogr. Cassid. iii. p. 308 [1], and iv. p. 444 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 180 [3].

Hab. PANAMA, Volcan de Chiriqui, David (*Champion*).—COLOMBIA [1–3]; VENEZUELA.

Found at David in company with *C. signifera*, from which it chiefly differs in having an additional ferruginous or black fascia extending across the elytral margins beyond the middle.

22. **Coptocycla sallæi.** (Tab. X. fig. 18, ♀.)

Coptocycla sallei, Boh. Monogr. Cassid. iv. p. 444 [1].

Hab. MEXICO, San Andres Tuxtla, Playa Vicente (*Sallé*), Cordova (*Sallé*, *Höge*), Misantla (*Höge*), Atoyac and Fortin in Vera Cruz (*H. H. Smith*), Teapa in Tabasco (*Höge*, *H. H. Smith*); GUATEMALA, San Isidro and Zapote (*Champion*).

Closely resembling *C. zetterstedti*, and only differing from it in having the posterior fascia on the elytral margins obliterated. The third joint of the antennæ is very elongate, fully twice as long as the second. A female specimen from Cordova is figured.

23. **Coptocycla signifera.** (Tab. X. figg. 19, ♀; 20, ♀, var. *trabeata*; 21, ♂, var. *immunda*.)

Cassida cruciata (Linn.), var.?, Degeer, Mém. des Ins. iv. p. 187 (excl. fig.) (1775) [1].

Cassida signifer, Herbst, Käfer, viii. p. 313, t. 135. fig. 9 (1799) [2].

Coptocycla guttata, Boh. Monogr. Cassid. iii. p. 314 [3], and iv. p. 445 [4]; Cat. Col. Ins. Brit. Mus. ix. p. 181 [5]; Crotch, Proc. Acad. Phil. 1873, p. 78 [6] (nec Oliv.).

Coptocycla hamulata, Boh. Monogr. Cassid. iii. p. 316 [7], and iv. p. 445 [8]; Cat. Col. Ins. Brit. Mus. ix. p. 181 [9].

Hab. NORTH AMERICA, Canada, Delaware, North Carolina, and New Orleans [4] [5], Pennsylvania [1], Atlantic region [6].—MEXICO, Misantla in Vera Cruz, Tapachula in Chiapas (*Höge*), Istapan, Playa Vicente, San Andres Tuxtla, Cordova (*Sallé*), Atoyac in Vera Cruz (*H. H. Smith*), Vera Cruz (*Sallé*, *H. H. Smith*), Teapa in Tabasco (*Sallé*, *Höge*, *H. H. Smith*), Temax in North Yucatan (*Gaumer*), Yucatan [4] [5] (*Chevrolat* [3]); BRITISH HONDURAS, R. Hondo (*Blancaneaux*); GUATEMALA, Las Mercedes, Zapote,

Dueñas (*Champion*); HONDURAS (*Dyson*[4]); NICARAGUA, Chontales (*Belt, Janson*); COSTA RICA (*Van Patten*), Volcan de Irazu (*Rogers*); PANAMA, Bugaba, David (*Champion*).—SOUTH AMERICA to Brazil; ANTILLES, Cuba[3–5], San Domingo[7–9], Jamaica[4 5].

Var. *α*. The elytra with almost the entire disc black, obscure castaneous, or castaneous, with a broad similarly coloured ramus extending across the margins to the humeri and a narrow stripe along the suture to the apex, the light markings sometimes faintly indicated; the prothorax with a broad black or castaneous basal patch, which is rounded, emarginate, or truncate in front. (Fig. 20.)

Cassida fuliginosa, Oliv. Ent. vi. p. 971. no. 97, t. 1. fig. 8[10].

Coptocycla immunita, Boh. Monogr. Cassid. iii. p. 318[11], and iv. p. 446[12]; Cat. Col. Ins. Brit. Mus. ix. p. 182[13].

Coptocycla trabeata, Boh. Monogr. Cassid. iii. p. 319[14], and iv. p. 446[15]; Cat. Col. Ins. Brit. Mus. ix. p. 182[16].

Hab. NORTH AMERICA[14–16].—MEXICO[15 16] (*Chevrolat*[14]), Yucatan[12 13] (*Pilate*[11]), Temax in North Yucatan (*Gaumer*); GUATEMALA, Las Mercedes and Zapote (*Champion*); NICARAGUA, Chontales (*Belt*).—ANTILLES, Guadeloupe[10].

Var. *β*. The elytra with an oblique sinuous castaneous stripe on the outer part of the disc, usually bordered with piceous below the humeral callus, extending broadly across the margins to the humeri, and with or without irregular rami extending inwards, the suture also narrowly bordered with castaneous or rufo-testaceous at the apex; the markings on the prothorax faint or obsolete. (Fig. 21.)

Coptocycla immunda, Boh. Monogr. Cassid. iii. p. 320[17], and iv. p. 447[18]; Cat. Col. Ins. Brit. Mus. ix. p. 182[19].

Coptocycla lucidula, Boh. Monogr. Cassid. iii. p. 321[20], and iv. p. 447[21]; Cat. Col. Ins. Brit. Mus. ix. p. 182[22].

Hab. NORTH AMERICA[20–22].—MEXICO[17–19], Guanajuato, Playa Vicente (*Sallé*), Teapa (*Sallé, H. H. Smith*), Temax in North Yucatan (*Gaumer*); GUATEMALA, Dueñas (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

This very variable and widely distributed species was incorrectly identified by Boheman with *C. guttata* (Oliv.) (=*cruciata*, Fabr., nec Linn.), as may be at once seen by a comparison of his description with Olivier's figures (Ent. vi. no. 97, t. 1. figg. 13 *a*, *b*), *C. guttata* having the elytral margins subhyaline throughout. Olivier in his second description of *C. guttata* (Ent. vi. no. 97, p. 955), which is based upon more than one example, quotes *C. cruciata*, Fabr. (nec Linn.), as a synonym, and states that the insect is from Tropical America, and is contained in the Banksian cabinet. The specimens he mentions are still extant: one, from which his figures were no doubt taken, is the eastern *C. sexguttata* (Boisd.), Boh., the other the Mexican *C. extensa*, Boh.; the name *guttata*, Oliv., therefore, will have to be applied to *C. sexguttata*, Boisd. There can be no doubt that the description and figure of *C. signifera*, Herbst, apply to our insect, and I accordingly adopt that name for it. *C. trabeata* (of which I have seen a Mexican specimen from Chevrolat in the British Museum) and *C. lucidula*, Boh., have already been sunk as varieties of *C. signifera*, and I have no hesitation in adding *C. hamulata*,

C. immunita, and *C. immunda*, Boh., to the synonymy. *Cassida fuliginosa*, Oliv. (Ent. vi. no. 97, p. 971, t. 1. fig. 8), from Guadeloupe, doubtfully placed by Boheman as a synonym of the South-American *Coptocycla cruciata* (Linn.), belongs almost certainly to the dark variety of our species (=*C. trabeata* or *C. immunita*, Boh.). I have examined the type of *C. immunda*, Boh.: it is a pale form of *C. signifera*, and has been received with typical examples from Yucatan, Teapa, &c.; specimens of *C. hamulata*, Boh., from San Domingo scarcely differ from it. We figure a typical *C. signifera* from Teapa, also a specimen of the var. α (*trabeata*), from Temax, and of the var. β (*immunda*), from Teapa.

24. **Coptocycla lecontei.** (Tab. X. fig. 22, ♀.)

Coptocycla lecontei, Crotch, Proc. Acad. Phil. 1873, p. 79[1].

Hab. North America, Arizona[1].—Mexico, Villa Lerdo in Durango, Tupataro in Guanajuato, Yautepec in Morelos, Chilpancingo in Guerrero, Misantla (*Höge*), Ventanas in Durango (*Forrer*), Guanajuato, Istapan (*Sallé*), Tepetlapa in Guerrero (*H. H. Smith*).

This is probably only a well-marked variety of *C. signifera*, Herbst (=*guttata*, Boh.); but as it is fairly constant on the central plateau of Mexico and in Arizona, where it appears to replace *C. signifera*, I retain it as distinct. *C. lecontei* chiefly differs from *C. signifera* in having the black markings on the disc of the elytra completely separated from the humeral patch by an oblique yellow stripe; it is also more elongate and larger, and has a sharply defined rounded black spot on the yellow discoidal markings near the base. Some specimens from Vera Cruz, Tapachula, and Nicaragua are almost intermediate between them; and in one from Zapote, Guatemala, the humeral patch is disconnected on one elytron and connected on the other. In typical *C. signifera* the yellow streak exterior to the humeral callus extends about halfway across the dark humeral ramus; but in some specimens of the vars. *immunda* and *hamulata*, Boh., the humeral patch is disconnected. Our figure is taken from a specimen from Tupataro, agreeing with one from Arizona kindly communicated by Dr. Horn.

25. **Coptocycla lugubrina.**

Coptocycla lugubrina, Boh. Monogr. Cassid. iii. p. 317[1], and iv. p. 446[2]; Cat. Col. Ins. Brit. Mus. ix. p. 181[3].

"Subrotundata, modice convexa, supra atra, subnitida, subtus dilute flavo-testacea; antennis articulis duobus ultimis nigris; prothorace obsoletissime punctulato, margine explanato, dilute flavo-hyalino; elytris inæqualiter, remote, dorso medio obsolete seriato-punctatis, antice haud retusis, ante medium disci unifoveolatis, disco medio longitudinaliter impressis; margine pone humeros flavo-hyalino, reticulato.—Long. 6, lat. 5¼ millim."

Hab. Mexico (*Mus. Berol.*[1–3]).

Apparently a close ally of *C. signifera*, var. *trabeata*.

26. **Coptocycla gibbifera.** (Tab. X. figg. 23, ♂; 23 *a*, profile of ditto; 24, ♀, var.)

♂. Rounded-triangular, very broad, convex, shining, flavo-testaceous; the prothorax with a transverse black, castaneous, or ferruginous patch of variable size on the basal part of the disc—excised on either side and produced in the middle in front, and with an interrupted testaceous median line, or divided down the middle, so as to form two sinuous stripes; the scutellum black with a testaceous line down the middle, or entirely testaceous; the elytra with the disc black, castaneous, or rufo-testaceous, and with a broad similarly-coloured ramus extending across the margins to the humeri, the suture anteriorly and some irregular markings and spots on the disc flavo-testaceous; the antennæ flavo-testaceous, with the apical joint, and sometimes the tenth also, black; the legs and under surface flavo-testaceous. Antennæ very elongate and slender, filiform, joint 3 nearly twice as long as 2. Prothorax about twice as broad as long, with the base deeply sinuate on either side of the broad median lobe and obliquely truncate laterally; the disc smooth, transversely depressed in the middle at the base; the margins very broadly expanded laterally and in front, subhyaline, and reticulate. Elytra nearly one-half wider than, and about three times as long as, the prothorax, very deeply sinuate-emarginate at the base, with the humeri rather sharp and greatly produced anteriorly, reaching to a little beyond the middle of the prothorax; the disc longitudinally convex, abruptly transversely gibbous below the base, with rows of coarse, subapproximate punctures, which towards the suture are placed in rather deep striæ, the interstices smooth, flat at the sides, convex towards the suture, and here and there connected by transverse or oblique feebly raised spaces; the margins very broadly expanded, gradually becoming narrower towards the apex, smooth and reticulate, subhyaline from a little below the base, broadly concave before the middle and obliquely excavate within the humeral angle. Claws simple.

♀. The antennæ shorter; the prothorax with the base more rounded towards the sides; the humeri more divergent and slightly sinuate externally.

Var. The antennæ and prothorax entirely flavo-testaceous; the elytra flavo-testaceous, faintly variegated with darker markings, the basal ramus distinct but not reaching the humerus.

Length $7\frac{1}{3}$–8, breadth $6\frac{1}{2}$–$7\frac{1}{2}$ millim.

Hab. NICARAGUA, Chontales (*Belt*, *Janson*); COSTA RICA, Irazu (*Rogers*); PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).

Sixteen examples. Following Boheman's arrangement, *C. gibbifera* should be placed next the Brazilian *C. vigens*, the only species of the genus described by him with gibbous elytra and strongly produced humeri. The present species closely resembles *C. asperata*, Boh.; but it has the humeri more produced in front (especially in the male), the disc of the elytra smoother posteriorly, and the base of the prothorax more deeply sinuate on either side of the median lobe. *C. gibbifera* also approaches those species included in *Psalidonota* by Boheman. We figure a male from Bugaba, and a pallid female from Chontales.

27. **Coptocycla diana.**

Coptocycla diana, Boh. Monogr. Cassid. iii. p. 366[1], and iv. p. 455[2]; Cat. Col. Ins. Brit. Mus. ix. p. 187[3].

"Rotundata, modice convexa, nitida, supra læte castanea, margine toto flavo-hyalino, reticulato; subtus testacea; prothorace lævi, basi plaga minore, transversa, antice late rotundata, nigro-fusca, postice dilutiore; elytris mediocriter, crebre striato-punctatis, singulo in disco exteriore linea nigra, a basi ad medium extensa; margine late explanato; humeris antrorsum valde prominulis, acutis.—Long. $8\frac{3}{4}$, lat. $7\frac{1}{2}$ millim."

Hab. MEXICO (*Mus. Sommer* [1–3]).

Unknown to me. *C. diana* is stated [1] to be very similar to *C. wesmaeli* in form, but differently coloured.

28. **Coptocycla circulata.** (Tab. X. fig. 25.)

Coptocycla circulata, Boh. Monogr. Cassid. iii. p. 211 [1], and iv. p. 425 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 170 [3].

Hab. Mexico, Cerro de Plumas (*Höge*).—South America, Cayenne [1–3].

One example from Eastern Mexico, not differing from others from South America. This remarkable species will probably have to be removed from *Coptocycla,* the elytra being very feebly emarginate at the base, with the humeri subacute but not prominent, the margins very broadly expanded to the apex. The antennæ are rather long and slender, with the third joint scarcely longer than the second.

29. **Coptocycla isthmica.** (Tab. X. figg. 26, ♀; 26 *a,* antenna.)

Subrotundate (♂), broad ovate (♀), convex, flavo-testaceous, shining, the margins subhyaline; the antennæ testaceous, with joints 8–11, the tip of the eleventh excepted, piceous or black; beneath and the legs testaceous. Antennæ subfiliform, rather stout, extending to a little beyond the base of the prothorax, joints 2 and 3 short, equal, 4 as long as 2 and 3 united, 5–7 subequal in length, each a little shorter than 4, 8–10 equal in length, each a little shorter than 7, 11 elongate, acuminate. Prothorax twice as broad as long, broadly dilated and reticulate at the sides and in front, the disc finely canaliculate in the middle at the base, the surface smooth. Elytra about three times as long as the prothorax in the female, shorter in the male, and much wider than it, deeply sinuate-emarginate at the base, conjointly rounded at the apex in both sexes; the disc convex, with widely scattered, subserially arranged, moderately coarse punctures, which usually become finer towards the suture and almost obsolete towards the apex; the margins broadly expanded, smooth, concave, separated from the disc by a row of deep foveæ; the humeri prominent, a little more rounded in the female than in the male. Claws simple.

Length 7¼–9, breadth 6½–7¼ millim.

Hab. Nicaragua, Chontales (*Belt, Janson*); Panama, Bugaba, Volcan de Chiriqui (*Champion*).

Nine examples. This insect is very like the Antillean *C. subsignata,* Boh.; but it is larger, and has the elytra immaculate and the third joint of the antennæ not longer than the second.

30. **Coptocycla vitreata.**

Cassida vitreata, Perty, Del. Anim. Artic. Bras. p. 103. t. 20. f. 13 [1].

Coptocycla vitreata, Boh. Monogr. Cassid. iii. p. 401 [2], and iv. p. 463 [3]; Cat. Col. Ins. Brit. Mus. ix. p. 191 [4].

Deloyala vetusta, Dej. Cat. 3rd edit. p. 395 [5].

Hab. Mexico, Teapa in Tabasco (*H. H. Smith*); Guatemala, Panzos (*Conradt*), Chacoj and San Juan in Vera Paz, Zapote (*Champion*); Nicaragua, Chontales (*Janson*); Panama, Bugaba (*Champion*).—Colombia; Brazil [1–5]; Peru.

This very peculiar species is widely distributed in Tropical America, but apparently

scarce, single specimens only having been obtained at most of the localities quoted. The antennæ are short, only extending to the base of the prothorax; the third joint is not longer than the second. The margins of the prothorax form almost a continuous outline with those of the elytra.

31. **Coptocycla atroannulus.** (Tab. X. figg. 27, ♀; 27 *a*, antenna.)

Subrotundate (♂), broad ovate (♀), moderately convex, flavous or flavo-testaceous, shining, the margins subhyaline; the eyes black; the prothorax with a large black basal patch, rounded anteriorly and occupying fully half the disc; the scutellum varying in colour from flavo-testaceous to black; the elytra with a broad black oblong annulus on the outer part of the disc, extending to near the apex, and enclosing a large, oval, flavo-testaceous or sanguineous patch; the antennæ flavous, with the apical joint black at the tip; beneath and the legs flavous or flavo-testaceous. Antennæ moderately long, slender, the apical five joints a little thickened, joint 3 slightly longer than 2. Prothorax nearly twice as broad as long, broadly expanded and reticulate at the sides and in front, and very obliquely truncate on either side at the base, almost smooth, the disc obsoletely canaliculate and feebly depressed at the base on either side of the median lobe. Elytra very much broader than the prothorax, and nearly three times as long as it, conjointly rounded at the apex in both sexes, and very deeply emarginate at the base, with prominent humeri; the disc moderately convex, slightly hollowed at the sides behind the humeral callus, with a deep sutural stria posteriorly, seriate-punctate—the punctures fine and approximate towards the suture, rather coarse and subremote at the sides, and almost obsolete before the apex,—the interstices smooth and flat; the margins very broadly expanded, becoming gradually narrower towards the apex, smooth and reticulate, separated from the disc by a row of moderately deep foveæ. Claws simple.

Length 7–7½, breadth 6⅓–7 millim.

Hab. British Honduras, R. Sarstoon (*Blancaneaux*); Guatemala, Senahu in Vera Paz (*Champion*); Nicaragua, Chontales (*Belt*, *Janson*); Costa Rica (*Van Patten*); Panama, Bugaba (*Champion*).

Eleven examples. This insect bears a deceptive resemblance to *C. circumducta*, Boh., but it may be at once distinguished from that species by the more elongate third joint of the antennæ (in *C. circumducta* the third joint is shorter than the second); it is also smaller, with shorter antennæ and a narrower annulus to the elytra, the latter not at all gibbous anteriorly, almost smooth at the apex, and not broadly subtruncate behind in the male. Numerous closely allied South-American species have been described by Boheman. We figure an example from Bugaba.

32. **Coptocycla cingulata.** (Tab. XI. fig. 1.)

Coptocycla cingulata, Boh. Monogr. Cassid. iv. p. 414[1].

Hab. Mexico, Cordova (*Sallé*[1]).

The three specimens in the Sallé collection are all I have seen of this species. The antennæ are moderately long and subfiliform, with the second and third joints equal in length, the third nearly as stout as the second.

33. **Coptocycla ambita.** (Tab. XI. fig. 2.)

Subrotundate, moderately convex, flavous, shining, the margins subhyaline; the eyes black; the prothorax with a rather large transverse black patch at the base, which is rounded anteriorly; the scutellum black:

the elytra with a very broad black oblong annulus on the outer part of the disc, extending to far beyond the middle, more or less obliquely truncate behind, and enclosing a moderately large, rounded, common flavous patch, which is sometimes divided at the suture by a narrow black line; the antennæ flavous, the apical joint infuscate at the tip; beneath and the legs flavous. Antennæ moderately long, slender, the apical five joints a little thickened, joint 3 slightly longer than 2. Prothorax about twice as broad as long, broadly expanded and reticulate at the sides and in front; the disc obsoletely canaliculate and with a few minute scattered punctures behind, very feebly depressed on either side of the median lobe at the base. Elytra about three times as long as the prothorax, and very much wider than it, very deeply emarginate at the base, and with prominent rather sharp humeri; the disc moderately convex, hollowed at the sides behind the humeral callus, and foveate before the middle, with an impressed sutural stria posteriorly, somewhat closely seriate-punctate—the punctures moderately fine towards the suture, coarse at the sides, and almost obsolete on the flavous apical portion,—the interstices smooth and flat: the margins broadly expanded, becoming gradually narrower towards the apex, smooth and reticulate, separated from the disc by a row of moderately deep foveæ. Claws simple.

Length $5\frac{1}{2}$–$5\frac{3}{4}$, breadth 5 millim.

Hab. Nicaragua, Chontales (*Belt, Janson*); Costa Rica (*Sallé*).

Seven specimens. Allied to *C. myops*, *C. puella*, &c., but larger, with a broad, entirely black annulus, which is less obliquely truncate behind, and the scutellum black. In one specimen the annulus is transversely truncate behind.

34. **Coptocycla balteata.** (Tab. XI. fig. 3.)

Rotundate, convex, shining; the prothorax with the disc black, the margins flavo-hyaline; the scutellum flavous, narrowly bordered with fuscous; the elytra with a broad black annulus extending round the disc and nearly reaching the apex, the enclosed portion rufo-testaceous, with rows of fuscous dots showing through from the inner side, the margins flavo-hyaline; the legs and antennæ flavo-testaceous; the under surface black, the prothorax at the sides and the abdomen flavo-testaceous. Antennæ moderately long, slender, the apical five joints a little thickened, joint 3 not longer than 2. Prothorax one-half broader than long, broadly expanded and reticulate at the sides and in front, feebly sinuate at the base on either side of the median lobe; the disc with a few rather deep punctures at the base towards the sides, and obliquely grooved on either side of the median lobe. Elytra much wider than, and about two and a half times as long as, the prothorax, deeply emarginate at the base, with moderately prominent rather obtuse humeri; the disc convex, shallowly foveate in the centre before the middle and bifoveate at the base, with rows of very fine punctures which become coarse towards the sides and almost obsolete towards the apex (the sutural row excepted), the interstices smooth and flat; the margins broadly expanded, becoming very narrow at the apex, smooth and reticulate, separated from the disc by a row of deep foveæ. Claws simple.

Length $4\frac{1}{3}$, breadth $3\frac{2}{3}$ millim.

Hab. Panama, Volcan de Chiriqui (*Champion*).

One specimen. This species resembles *C. atroannulus* in colour, but it is only about half the size of that insect; it also differs in having the prothorax grooved on either side of the median lobe at the base, the black annulus extending almost to the apex of the elytra, the disc of the prothorax entirely black, that of the elytra more distinctly foveate before the middle. The broad black annulus extending nearly to the apex, in connection with the small size and rotundate shape, separates *C. balteata* from the other allied species here enumerated.

35. **Coptocycla irazuensis.** (Tab. IX. fig. 4.)

Broad ovate, moderately convex, dilute flavous, shining, the margins hyaline; the eyes, and a narrow transverse patch (rounded anteriorly) at the base of the prothorax, black; the scutellum black, sanguineous at the tip; the elytra with a moderately broad, oblong black annulus on the outer part of the disc, extending to beyond the middle and rounded behind, bordered internally and externally with sanguineous, and enclosing a large, oval, common flavous patch; the antennæ flavous, the apical joint infuscate at the tip; the legs and under surface flavous. Antennæ moderately long, slender, the apical five joints a little thickened, joint 3 scarcely longer than 2. Prothorax twice as broad as long, broadly expanded and reticulate at the sides and in front, the disc canaliculate and with a few very minute scattered punctures behind. Elytra about three times as long as the prothorax, and much wider than it, deeply emarginate at the base, with prominent, rather sharp humeri; the disc moderately convex, hollowed at the sides behind the humeral callus and foveate before the middle, with a feebly impressed sutural stria posteriorly, somewhat closely seriate-punctate—the punctures fine towards the suture and coarse at the sides,—the flavous apical portion almost impunctate, the interstices smooth and flat; the margins broadly expanded, becoming gradually narrower towards the apex, smooth and reticulate, separated from the disc by a row of moderately deep foveæ. Claws simple.

Length 5½, breadth 4⅓ millim.

Hab. Costa Rica, Volcan de Irazu (*Rogers*).

One specimen, probably of the female sex. Closely allied to *C. ambita*, but a little smaller and narrower; the annulus narrower, and rounded at the apex, rather broadly bordered on the inner side with sanguineous, and with the outer edge and a spot on the humeral callus also sanguineous, and enclosing a large, oval, flavous patch.

36. **Coptocycla puella.** (Tab. XI. fig. 5.)

Coptocycla puella, Boh. Monogr. Cassid. iii. p. 181 [1], and iv. p. 415 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 167 [3].

Hab. Mexico, Teapa [1–3] (*Sallé, Höge, H. H. Smith*); British Honduras, Belize (*Blancaneaux*); Nicaragua, Chontales (*Belt, Janson*); Costa Rica (*Sallé*); Panama, Bugaba, David (*Champion*).

This species is not uncommon at Teapa. The antennæ are rather short, extending to very little beyond the base of the prothorax; the third joint is short and slender, not longer than the second. The South-American *C. myops*, Boh., is a very close ally of this insect. A specimen from Teapa is figured.

37. **Coptocycla bonvouloiri.** (Tab. XI. fig. 6.)

Coptocycla bonvouloiri, Boh. Monogr. Cassid. iv. p. 417 [1].

Hab. Lower California (*Horn*).—Mexico (*Sallé* [1]), Presidio de Mazatlan (*Forrer*), Puebla, Tuxtla (*Sallé*), Teapa in Tabasco (*H. H. Smith*); Guatemala, San Isidro, Zapote, San Gerónimo (*Champion*).

In the single specimen from Presidio, apparently fully mature, the narrow annulus (common to the prothorax and elytra) is interrupted and indistinct, and ferruginous instead of black. The antennæ are rather short, with the third joint slender and not

longer than the second. The elytra have three small fuscous or piceous spots—one just behind the scutellum and one on either side of the suture a little lower down; the suture itself is narrowly testaceous. An example from Teapa is figured.

38. **Coptocycla diophthalma.** (Tab. XI. fig. 7.)

Subrotundate, convex, dilute flavous, shining, the margins subhyaline; the eyes black; the prothorax with a transverse blackish-brown patch at the base, which is excised on either side in front; the scutellum blackish-brown; the elytra with a very large, octagonal, blackish-brown patch on the disc—extending to considerably beyond the middle and outwardly to the humeral callus, abruptly narrowed behind, and truncate at the apex,—marked with a small oblong flavous spot on either side of the suture before the middle, the suture testaceous throughout; the antennæ flavous, with the apical two joints piceous; the legs and under surface flavous. Antennæ rather short and slender, thickening outwardly, extending very little beyond the base of the prothorax, joints 2 and 3 equal in length, 3 not nearly so stout as 2. Prothorax twice as broad as long, broadly expanded and reticulate at the sides and in front, smooth, the disc deeply, obliquely grooved at the base on either side of the broad median lobe. Elytra about two and a half times the length of the prothorax, and at the sides forming almost a continuous outline with it, moderately deeply emarginate at the base, conjointly rounded at the apex, with the humeri sharp and prominent; the disc convex, subremotely seriate-punctate, the punctures (those of the sutural row excepted) fine towards the suture, closer and much coarser at the sides, and almost obsolete on the flavous apical portion, the interstices quite flat, smooth; the margins broadly expanded, becoming very narrow at the apex, smooth and reticulate, separated from the disc by a row of distantly placed foveæ, and deeply hollowed before the middle internally. Claws simple.

Length $4\frac{1}{2}$, breadth $3\frac{3}{4}$ millim.

Hab. Mexico, Acapulco (*Höge*).

One example only of this peculiarly-coloured small species has been received. It is allied to *C. bonvouloiri*, Boh., but has more distinctly and less remotely punctured elytra, and is also very differently coloured. The blackish-brown markings on the prothorax and elytra form a common octagonal patch, the elytra having the suture testaceous and a small yellow spot on either side of it before the middle. The punctures of the sutural row are deep and rather widely separated, and they extend to the apex.

39. **Coptocycla zona.**

Cassida zona, Fabr. Syst. Eleuth. i. p. 393 [1].

Coptocycla zona, Boh. Monogr. Cassid. iii. p. 160 [2], and iv. p. 406 [3]; Cat. Col. Ins. Brit. Mus. ix. p. 165 [4].

Cassida annulus, Oliv. Ent. vi. no. 97, p. 969, t. 1. fig. 14 [5]; Herbst, Käfer, viii. p. 272, t. 133. fig. 3 [6] (nec Fabr.).

Cassida flavescens, Latr. in Humb. & Bonpl. Obs. Zool. ii. p. 35, t. 32. fig. 8 [7].

Hab. Nicaragua (*Sallé*); Costa Rica (*Sallé*); Panama, Bugaba, Volcan de Chiriqui, David (*Champion*).—South America [7], Cayenne [2–6], Venezuela [3 4].

A common insect in Chiriqui. This species has the disc of the elytra olivaceous, with a common yellow annulus before the middle. The antennæ are rather short, with the third joint slender and not longer than the second.

40. **Coptocycla semiatrata.** (Tab. XI. fig. 8.)

Coptocycla semiatrata, Boh. Monogr. Cassid. iv. p. 428[1].

Hab. MEXICO, Cordova (*Sallé*[1]), Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*); GUATEMALA, Las Mercedes, Cerro Zunil (*Champion*).

This insect is exceedingly like the similarly-coloured *Ctenochira plicata* (Boh.), but, apart from the non-pectinate claws, it may be distinguished by the smoother and less coarsely punctured elytra, the disc of the latter not deeply foveate on either side of the suture a little below the base. The third joint of the antennæ is not longer than the second. A specimen from Teapa is figured.

41. **Coptocycla crucipennis.** (Tab. XI. fig. 9.)

Coptocycla crucipennis, Boh. Monogr. Cassid. iii. p. 307[1], and iv. p. 444[2]; Cat. Col. Ins. Brit. Mus. ix. p. 180[3].

Hab. MEXICO[1-3], San Andres Tuxtla, Playa Vicente (*Sallé*), Cordova, Misantla, Oaxaca, Tapachula (*Höge*), Atoyac, Teapa (*H. H. Smith*); BRITISH HONDURAS, R. Hondo (*Blancaneaux*); GUATEMALA, Yzabal (*Sallé*), Panima, Panzos, San Juan, Senahu, Tactic, and San Gerónimo in Vera Paz, Capetillo, Zapote (*Champion*); HONDURAS (*Sallé*); NICARAGUA, Granada (*Sallé*); COSTA RICA (*Rogers, Van Patten*).

Not uncommon in Mexico and Guatemala. The antennæ usually have the apical joint infuscate or black, and sometimes the penultimate joint also; in some specimens, however, only the extreme tip of the apical joint is infuscate; the third joint is short, very little longer than the second. The elytra are rather feebly emarginate at the base. A specimen from Misantla is figured.

42. **Coptocycla dohrni.** (Tab. XI. fig. 10.)

Coptocycla dohrni, Boh. Monogr. Cassid. iii. p. 323[1], and iv. p. 447[2]; Cat. Col. Ins. Brit. Mus. ix. p. 182[3].

Hab. MEXICO[1-3], Matamoros Izucar, Orizaba, Vera Cruz (*Sallé*), Cordova (*Sallé*, *Höge*), Misantla, Jalapa (*Höge*), Atoyac in Vera Cruz (*H. H. Smith*).

This insect only differs from *C. crucipennis* in having the anterior ramus of the broad C-shaped mark on the outer part of each elytron obliterated (not extending across the margins to the humeri, as in *C. crucipennis*), and the other elytral markings reduced in size. One specimen from Cordova is almost intermediate. An example from Jalapa is figured.

43. **Coptocycla distorta.** (Tab. XI. fig. 11.)

Coptocycla distorta, Boh. Monogr. Cassid. iii. p. 324[1], and iv. p. 447[2]; Cat. Col. Ins. Brit. Mus. ix. p. 182[3].

Hab. MEXICO[1-3], Yolotepec in Oaxaca (*Sallé*).

We have received three specimens only of this species. *C. distorta* closely resembles *C. dohrni*, Boh., but differs from it in its smaller size, and in having the margins of the elytra rugulosely punctured. The elytra have a small transverse or oblong blackish spot on the suture before the middle. The antennæ (which were mutilated in the specimen described by Boheman) have the apical joint, and the outer half of the preceding one, black; the third joint is not longer than the second.

44. **Coptocycla biannulifera.** (Tab. XI. figg. 12; 12 *a*, antenna.)

Rotundate, convex, flavous, shining, the margins subhyaline; the eyes, and a narrow transverse patch at the base of the prothorax, black; the scutellum flavous; the elytra with a narrow black stripe on the outer part of the disc, extending obliquely inwards a little beyond the middle and curved behind, and forming (with the mark at the base of the prothorax) an octagonal annulus, which is broadly bordered with dilute sanguineous within, and encloses a common flavous rounded patch; the antennæ testaceous, with the apical two joints slightly infuscate; the legs and underside testaceous. Antennæ short, scarcely extending beyond the base of the prothorax, slender, the apical five joints a little thickened, joint 3 shorter and thinner than 2, 4 twice as long as 3. Prothorax nearly twice as broad as long, very broadly dilated and reticulate at the sides and in front, the disc feebly depressed at the base on either side of the broad median lobe, and with a few fine scattered punctures behind. Elytra about two and a half times as long as the prothorax, and at the sides forming almost a continuous outline with it, conjointly rounded at the apex, strongly bisinuate at the base, and with the humeri subacute and prominent in front; the disc convex, hollowed behind the humeral callus, with regular rows of fine, lightly impressed, rather remotely placed punctures, the interstices smooth and quite flat; the margins very broadly expanded, becoming narrow at the apex, smooth and reticulate, separated from the disc by a row of deep foveæ. Claws simple.

Length 7¼, breadth 6½ millim.

Hab. PANAMA, Volcan de Chiriqui 3000 feet (*Champion*).

One example, probably of the male sex. Closely allied to *Charidotis circulifera*, Boh., the type of which is before me; but differing from it in the very much narrower black annulus (common to the prothorax and elytra), the shorter antennæ, and the still finer seriate punctures of the elytra, the median lobe of the prothorax very faintly depressed on either side at the base (deeply, obliquely grooved in *C. circulifera*). Notwithstanding the short antennæ, the species seems to me to be best placed in *Coptocycla*, near *C. circumducta*, *C. incincta*, &c. A closely-allied undescribed species from the Amazons is contained in the Baly collection.

45. **Coptocycla incincta.** (Tab. XI. figg. 13; 13 *a*, antenna.)

Coptocycla incincta, Boh. Monogr. Cassid. iv. p. 422[1].

Hab. PANAMA, Bugaba (*Champion*).—AMAZONS, Ega[1].

One specimen from Chiriqui, differing from the type of *C. incincta* in the Baly collection in having the antennæ slightly longer and almost entirely testaceous, the punctures on the elytra coarser, and the annulus a little broader. This is one of several extremely closely allied species (*C. concentrica*, *C. cincticulus*, *C. consimilis*, and *C. signoreti*, Boh.), some of which appear to have been described from single specimens, differing chiefly *inter se* in the form of the antennæ and in the elytral punctuation.

C. incincta has comparatively short, subfiliform antennæ, with joint 3 shorter and thinner than 2, 4 fully twice as long as 3, 5–10 slightly decreasing in length. The deep punctures on the elytra are rather widely separated from each other, especially on the rounded black patch enclosed by the yellow annulus.

46. **Coptocycla circumducta.** (Tab. XI. figg. 14; 14 *a*, antenna.)

Coptocycla circumducta, Boh. Monogr. Cassid. iii. p. 161[1], and iv. p. 406[2]; Cat. Col. Ins. Brit. Mus. ix. p. 165[3].

Hab. PANAMA, Volcan de Chiriqui (*Champion*).—BRAZIL[1], Rio Grande[2 3].

Three male examples from Chiriqui, agreeing with others from Brazil. No mention is made by Boheman of the sexual differences, the males having, as in some of the allied forms, the elytra very obtuse and almost separately rounded at the apex. The antennæ are moderately elongate and subfiliform, with joint 3 much shorter and thinner than 2, 4 twice as long as 3, 5 nearly twice as long as 4, 6–10 subequal in length, 11 very elongate, black at the tip.

47. **Coptocycla aurofasciata.** (Tab. XI. figg. 15, ♂; 16, var. *fåhræi*, ♀.)

Cassida aurofasciata, Er. in Wiegm. Archiv f. Naturg. xiii. 1, p. 155[1].

Coptocycla aurofasciata, Boh. Monogr. Cassid. iii. p. 224[2], and iv. p. 429[3]; Cat. Col. Ins. Brit. Mus. ix. p. 171[4].

Hab. PANAMA (*Boucard*), Bugaba (*Champion*).—SOUTH AMERICA, Cayenne[2–4], Amazons, Brazil[2–4], Peru[1–4].

Var. *α*. The transverse fascia on the elytra broader; antennæ with joints 2–10 infuscate beneath.

Hab. NICARAGUA, Chontales (*Belt*).

Var. *β*. The elytral fascia extending forwards along the first and second interstices to the base, leaving a large rounded patch on each elytron, and nearly the apical half, black; antennæ with joints 4–6 and 11 infuscate at the tip beneath.

Coptocycla fåhræi, Boh. Monogr. Cassid. iii. p. 229[5], and iv. p. 429[6]; Cat. Col. Ins. Brit. Mus. ix. p. 172[7].

Hab. MEXICO, Teapa (*coll. Baly*); GUATEMALA, Panzos in Vera Paz (*Champion*, *Conradt*); HONDURAS[5–7].

C. fåhræi, the type (♀) of which we figure (fig. 16), is evidently only a variety of the widely distributed *C. aurofasciata*. The males, as in the closely-allied *C. leprieuri*, Boh., differ from the females in having the elytra broadly subtruncate at the apex. The antennæ are elongate and subfiliform, with the third joint (as in *C. leprieuri*) distinctly shorter and thinner than the second, the fourth twice as long as the third, the fifth more than one-half longer than the fourth, joints 5–10 being elongate and subequal in length.

48. **Coptocycla leprieuri.**

Coptocycla leprieuri, Boh. Monogr. Cassid. iii. p. 223 [1], and iv. p. 429 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 171 [3].

Hab. HONDURAS [2] (*Dyson* [3]).—VENEZUELA; GUIANA, Cayenne [1–3]; ECUADOR; AMAZONS, Ega [2 3]; PERU.

There is a single specimen of this species in the British Museum, labelled as from Honduras.

49. **Coptocycla clavata.**

Cassida clavata, Fabr. Ent. Syst., Suppl. p. 83 (1798) [1]; Herbst, Käfer, viii. p. 311, t. 135. fig. 7 *b* [2]; Oliv. Ent. vi. p. 963. no. 97, t. 5. fig. 87 [3].

Coptocycla clavata, Boh. Monogr. Cassid. iii. p. 391 [4], and iv. p. 461 [5]; Cat. Col. Ins. Brit. Mus. ix. p. 189 [6]; Crotch, Proc. Acad. Phil. 1873, p. 79 [7].

Hab. NORTH AMERICA [1–6], Southern States [7].—MEXICO, Guanajuato, Matamoros Izucar (*Sallé*), Acapulco (*Höge*), Cuernavaca in Morelos, Chilpancingo and Amula in Guerrero (*H. H. Smith*).

This species is exceedingly closely allied to the following, *C. testudinaria*, Boh., and apparently replaces it in Western and Central Mexico. It differs from that insect in the less prominent elytral humeri (especially in the female), and in having the prothorax relatively broader and more expanded, with the disc (except at the base) opaque; this last-mentioned character is apparently constant, though it is not mentioned by Boheman. The marginal fasciæ of the elytra vary in width in both species. The antennæ are elongate and slender, thickening a little at the tip, the third and fourth joints elongate and equal, each very much longer than the second.

50. **Coptocycla testudinaria.** (Tab. XI. figg. 17, ♀; 17 *a*, profile; 17 *b*, antenna.)

Coptocycla testudinaria, Boh. Monogr. Cassid. iii. p. 390 [1], and iv. p. 461 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 189 [3].

Hab. MEXICO [1–3], Playa Vicente (*Sallé*), Cerro de Plumas, Misantla (*Höge*), Cordova (*Sallé*, *Höge*), Vera Cruz, Teapa (*Sallé*, *H. H. Smith*), San Juan Bautista in Tabasco (*Höge*), Yucatan (*coll. Baly*); GUATEMALA, San Isidro, Capetillo, Dueñas (*Champion*), Chimaltenango (*Conradt*); COSTA RICA (*Rogers*, *Van Patten*); PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).—COLOMBIA; VENEZUELA.

Var. The elytra a little more rounded at the sides, with sharper humeri, and the smooth irregular callosities on the posterior part of the disc less raised.

Hab. GUATEMALA, Panzos, Sabo, and Purula in Vera Paz (*Champion*), Coban (*Conradt*).

A common insect in Eastern Mexico and Guatemala, extending southwards to Colombia and Venezuela. Some of the specimens from Costa Rica, and also those

from Panama and southwards, have the marginal fasciæ of the elytra broader and more diffuse than usual, and the tubercular elevations on the posterior portion of the disc more strongly raised. The variety is connected with the type by intermediate forms. *C. ramosa*, Boh., from Merida, is an allied form; but it differs from *C. testudinaria* and its allies in having much more feebly gibbous elytra.

A specimen from Misantla is figured.

51. **Coptocycla asperata.**

Coptocycla asperata, Boh. Monogr. Cassid. iii. p. 395 [1], and iv. p. 462 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 190 [3].

Hab. MEXICO [2 3] (*Chevrolat* [1]; *Mus. Brit.*); GUATEMALA, Cubilguitz and Las Mercedes (*Champion*).

I have only seen three examples of this insect, including one from Chevrolat (no doubt one of Boheman's types) in the British Museum. *C. asperata* is perhaps only a variety of *C. testudinaria* with the posterior transverse patch on the elytral margins obliterated.

52. **Coptocycla tuberculata.** (Tab. XI. fig. 18.)

Cassida tuberculata, Fabr. Syst. Ent. p. 90 (1775) [1]; Gmelin, Syst. Nat. i. 4, p. 1640 [2]; Herbst, Käfer, viii. p. 338 [3].

Coptocycla tuberculata, Boh. Monogr. Cassid. iii. p. 385 [4], and iv. p. 460 [5]; Cat. Col. Ins. Brit. Mus. ix. p. 188 [6].

Coptocycla nitida, Boh. Monogr. Cassid. iii. p. 383 [7], and iv. p. 460 [8]; Cat. Col. Ins. Brit. Mus. ix. p. 188 [9].

Coptocycla lobata, Boh. Monogr. Cassid. iii. p. 386 [10], and iv. p. 460 [11]; Cat. Col. Ins. Brit. Mus. ix. p. 189 [12].

Deloyala acuticornis (Chevr.), Dej. Cat. 3rd edit. p. 396 [13].

Deloyala impressa, Sturm, in litt.

Hab. MEXICO [4–13] (*Sallé, ex coll. Sturm*), Ventanas in Durango, Jalapa, Oaxaca, Tapachula (*Höge*), Acapulco and Tepetlapa in Guerrero (*H. H. Smith*), Vera Cruz, Panistlahuaca (*Sallé*); GUATEMALA (*Sallé*; *coll. Baly*), Panima, San Gerónimo, and Tocoy in Vera Paz, Las Mercedes, Cerro Zunil, Panajachel, Zapote, Capetillo (*Champion*); HONDURAS [11] (*Dyson* [12]); NICARAGUA, Chontales (*Belt*, *Janson*); COSTA RICA (*Van Patten*).—VENEZUELA [5 6].

This is one of the most characteristic species of the family within our limits, and it has been found abundantly in some parts of Guatemala. *C. nitida*, Boh., was based upon a large pallid discoloured female example, and *C. lobata*, Boh., upon specimens with the pro- and metasternum and fifth ventral segment partly black. These characters are not of the slightest value when a large series of specimens is examined. *C. tuberculata* and *C. lobata* were collected together in large numbers by myself at

Cerro Zunil, and also at other places in Guatemala, these specimens varying in the colour of the under surface—from entirely testaceous or rufo-testaceous (*C. tuberculata*) to rufo-testaceous with the prosternal process, the apical half of the metasternum (except at the sides), the basal half of the fifth ventral segment, and the base of the femora beneath black. The elytra (in dried examples) vary in colour from a dilute vermilion-red to flavo-testaceous; the margins have a large oblong flavo-hyaline space before the middle. Boheman's specimens of all three forms have been examined, one of which (his *tuberculata*) is figured. The closely allied *C. rubicunda*, Boh., from Brazil, differs from the present species in having the elytral margins coarsely punctured at the base. The third joint of the antennæ is elongate in both species. The Costa Rican specimens have the punctures on the elytra coarser than usual. The smallest examples measure 7 millim. only in length, the largest 10 millim. The locality "Sierra Leone" quoted by the older authors [1-3] is of course a mistake.

53. **Coptocycla ventricosa.** (Tab. XI. fig. 19, ♂.)

Coptocycla ventricosa, Boh. Monogr. Cassid. iii. p. 394 [1], and iv. p. 462 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 190 [3].

Hab. Mexico [1-3] (*Sallé, ex coll. Sturm*), Playa Vicente, San Andres Tuxtla, Cordova (*Sallé*), Misantla (*Höge*), Vera Cruz (*Sallé, H. H. Smith*), Atoyac in Vera Cruz (*H. H. Smith*), Teapa in Tabasco (*Sallé, Höge, H. H. Smith*); British Honduras, R. Hondo (*Blancaneaux*); Guatemala, Panzos in Vera Paz (*Champion*); Panama, Bugaba, Volcan de Chiriqui, David (*Champion*).

This also is a common Central-American insect. It is perhaps only a variety of *C. tuberculata*, from which it differs in its rather smaller size, and in having the elytral margins subhyaline posteriorly (not stained with rufo-testaceous in their apical two-fifths, as in *C. tuberculata*). *C. ventricosa* has been collected in numbers at Teapa and Misantla, and it is quite constant in those localities; but some of the Chiriqui specimens are intermediate.

54. **Coptocycla egregia.** (Tab. XI. figg. 20, ♀; 21, ♀, var.)

Coptocycla egregia, Boh. Monogr. Cassid. iii. p. 400 [1], and iv. p. 462 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 190 [3].

Hab. Mexico [1-3], Juquila in Oaxaca (*Sallé*), Oaxaca (*Höge*).

Var. *α*. The dark markings on the elytral margin not extending to the shoulder.

Hab. Panama, David (*Champion*). One specimen.

Var. *β*. The dark markings on the elytral margin almost obliterated, a faint curved line limiting the triangular antemedian hyaline patch anteriorly alone visible, the margins thence to the apex subhyaline.

Hab. Panama, Volcan de Chiriqui (*Champion*). Two specimens.

Var. γ. The dark markings on the elytral margin entirely obliterated, the antemedian hyaline space distinct. (Fig. 21.)

Hab. Nicaragua, Chontales (*Belt, Janson*). Two specimens.

We have received three examples of the typical form of this species, including one determined by Boheman himself, which we figure (fig. 20), as well as one of the varieties. The specimens from Nicaragua and the State of Panama I have no doubt belong to the same species, differing only in the partial or entire absence of the dark markings before and behind the antemedian hyaline space on the elytral margins. As in *C. tuberculata*, *C. ventricosa*, &c., the upper surface in dried specimens varies in colour from vermilion-red to flavo-testaceous.

55. Coptocycla propinqua. (Tab. XI. fig. 22.)

Coptocycla propinqua, Dej. Cat. 3rd edit. p. 397[1]; Boh. Monogr. Cassid. iii. p. 289[2], and iv. p. 440[3]; Cat. Col. Ins. Brit. Mus. ix. p. 178[4].

Hab. Nicaragua, Chontales (*Belt, Janson*); Panama (*Boucard*), David, Volcan de Chiriqui, Taboga I. (*Champion*).—Colombia[2–4], Barranquilla, Cartagena[1].

A rather common insect in the low country of the State of Panama, extending northwards to Nicaragua. A small, convex species, subrotundate in shape; the elytra with the disc black, each with two yellow vittæ—the inner one (on the third interstice) extending to the apex, the outer one (on the sixth interstice) confluent with the other posteriorly; the antennæ testaceous, with the outer four, five, or six joints black, the third elongate, as long as the fourth.

56. Coptocycla judaica.

Cassida judaica, Fabr. Spec. Ins. i. p. 109 (1781)[1]; Herbst, Käfer, viii. p. 280, t. 133. fig. 11 *k*[2]; Oliv. Ent. vi. no. 97, p. 968, t. 6. fig. 96[3].

Coptocycla judaica, Boh. Monogr. Cassid. iii. p. 293[4], and iv. p. 441[5]; Cat. Col. Ins. Brit. Mus. ix. p. 179[6].

Hab. Panama (*Boucard*), Bugaba, Volcan de Chiriqui (*Champion*), Matachin (*Thième*).—Colombia; Guiana[3], Cayenne[1 2 4 5 6]; Ecuador; Amazons, Santarem[5 6]; Brazil[4–6].

Apparently a common insect in Tropical America, extending as far north as Chiriqui. The elytra in this species have the disc variegated with black or castaneous, each of the punctures—which are fine and remote—being placed on a similarly-coloured dot, the suture being also narrowly castaneous. The third and fourth joints of the antennæ are elongate and equal in length.

57. Coptocycla subirrorata. (Tab. XI. fig. 23.)

Coptocycla subirrorata, Boh. Monogr. Cassid. iii. p. 259[1], and iv. p. 435[2]; Cat. Col. Ins. Brit. Mus. ix. p. 175[3].

Hab. PANAMA, David and Caldera in Chiriqui (*Champion*).—COLOMBIA [1-3].

Found in abundance by myself in the low country of Chiriqui. A small, convex species, subrotundate in shape; the elytra with the disc black or fusco-castaneous, with numerous, feebly raised, irregularly-shaped yellow spots, the margins broad and flavo-hyaline; the antennæ elongate, the third and fourth joints long and subequal, the apical three infuscate or black. The coloration of the elytra resembles that of *Charidotis auroguttata*, but the elytral spots are more irregular in shape (not so rounded) and less raised.

58. Coptocycla bifossulata.

Coptocycla bifossulata, Boh. Monogr. Cassid. iii. p. 135 [1], and iv. p. 401 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 162 [3].

Coptocycla dubitabilis, Boh. Monogr. Cassid. iv. p. 401 [4].

Hab. MEXICO [1-3] (*Sallé* [4]), Mazatlan, Ventanas, Irapuato, Cuernavaca, Iguala, Misantla, Jalapa, Tapachula (*Höge*), Etla, Guanajuato, Matamoros Izucar, Vera Cruz, Panistlahuaca (*Sallé*), Chilpancingo in Guerrero, Puente de Ixtla in Morelos (*H. H. Smith*), Cordova, Oaxaca (*Sallé*, *Höge*), S.W. Yucatan; GUATEMALA (*Sallé*), Las Mercedes, Cerro Zunil, Dueñas, Capetillo, San Gerónimo (*Champion*).

A common insect in Mexico and Guatemala. It varies in the colour of the underside, from entirely testaceous to black, with the margins of the abdomen narrowly testaceous, specimens from the same locality varying in this way. *C. bifossulata* (the type of which is before me) is described as having the underside testaceous, with a large patch on either side of the metasternum black; *C. dubitabilis* as black, with the margins of the abdomen rather broadly testaceous. The different forms have been collected in company at Chilpancingo, Misantla, Cordova, Capetillo, &c., and they cannot be maintained as distinct. In a few specimens from various places in Mexico the punctures of the elytral series are very lightly impressed and much more widely separated than usual. *C. bifossulata* closely resembles the following species, *C. trisignata*, but it is larger, and has more expanded margins to the elytra and a deeper discoidal fovea. The dilute blackish spots are small or indistinct, in some specimens obsolete: two or three are sometimes visible on each elytron, as in the following species; Boheman only mentions [1 4] the one in the fovea. The metamorphoses of this species have been described and figured by Dr. E. Dugès (Ann. Soc. Ent. Belg. 1887, pp. 143–145, t. 2. figg. 1–10), who gives the food-plant as *Ipomœa murucoides*.

59. Coptocycla trisignata.

Cassida sexpunctata, Oliv. Encycl. Méth. v. p. 382 [1]; Ent. vi. p. 961. no. 97, t. 3. fig. 42 [2] (nec Fabr.).

Coptocycla trisignata, Boh. Monogr. Cassid. iii. p. 138[3], and iv. p. 402[4]; Cat. Col. Ins. Brit. Mus. ix. p. 162[5].

Coptocycla bis-tripunctata, Boh. Monogr. Cassid. iii. p. 141[6], and iv. p. 402[7]; Cat. Col. Ins. Brit. Mus. ix. p. 163[8] (nec Herbst).

Hab. MEXICO, Presidio (*Forrer*), Ciudad in Durango, Iguala, Huetamo, Cordova, Jalapa, Oaxaca, Tapachula (*Höge*), Chilpancingo, Dos Arroyos, Venta de Peregrino, and Venta de Zopilote in Guerrero, Cuernavaca, Atoyac (*H. H. Smith*), San Andres Tuxtla, Playa Vicente, Vera Cruz, Juquila (*Sallé*), Misantla (*Höge, F. D. G.*), Teapa in Tabasco (*Sallé, H. H. Smith*), Temax in North Yucatan (*Gaumer*), Yucatan (*Mus. Holm.* [3–5]); BRITISH HONDURAS, R. Hondo (*Blancaneaux*); GUATEMALA (*Sallé*), San Juan, Panima, Chiacam, Chacoj, Teleman, and San Gerónimo in Vera Paz, El Reposo, Cerro Zunil, Zapote, Capetillo (*Champion*); NICARAGUA, Chontales (*Belt, Janson*); COSTA RICA (*Sallé*); PANAMA, Bugaba, Volcan de Chiriqui, Caldera, David, Taboga I. (*Champion*), Matachin (*Thième*).—SOUTH AMERICA to Guiana [1 2 6 7 8] and Brazil [6 7 8].

Var. The elytra with the posterior spot obsolete, the others often indistinct.

Coptocycla bi-impressa, Boh. Monogr. Cassid. iii. p. 140[9], and iv. p. 402[10]; Cat. Col. Ins. Brit. Mus. ix. p. 162[11].

Hab. MEXICO, Ventanas (*Forrer*), Acapulco, Jalapa, Cerro de Plumas (*Höge*), Playa Vicente, San Andres Tuxtla (*Sallé*), Cordova, Oaxaca (*Sallé, Höge*), Alvarado [10 11] (*Chevrolat* [9]), Atoyac, Teapa (*H. H. Smith*); NICARAGUA (*Sallé*).

A very abundant Tropical-American species, ranging from Northern Mexico to Brazil. With long series of specimens from the same localities, the colour of the underside proves (as in *C. bifossulata*) to be of no value as a specific character. In typical *C. trisignata*, of which we have received many specimens from Yucatan, the underside is entirely testaceous; in *C. bis-tripunctata* it is in great part black; in *C. bi-impressa* (described as having the underside flavescent) it is also in great part black in the majority of the large number of examples before me, both forms having occurred together at Jalapa and elsewhere. The three elytral spots, when present, are larger and more distinct than in *C. bifossulata* or *C. bicolor*; but they are sometimes obsolete or small, or the posterior one only (*C. bi-impressa*) may be obliterated. *C. trisignata* also varies greatly in size, the males, as usual, being shorter and more rotundate than the females. *C. bis-tripunctata*, Herbst, from Maryland, is doubtfully quoted as a synonym by Boheman; it is perhaps a variety of *C. bicolor*, Fabr. The Mexican specimens in the British Museum which were referred by Boheman to *C. limpida* * (a Brazilian insect) probably belong here; they appear to be small pallid males of the var. *bi-impressa*. The Brazilian *C. sexpunctata*, Fabr., is a very close ally of *C. trisignata*.

* Cat. Col. Ins. Brit. Mus. ix. p. 183.

60. Coptocycla bicolor.

Cassida bicolor, Fabr. Ent. Syst., Suppl. p. 83 (1798)[1].

Cassida aurichalcea, Fabr. Syst. Eleuth. i. p. 397 (1801)[2]; Oliv. Ent. vi. no. 97, p. 965, t. 5. fig. 89[3].

Coptocycla aurichalcea, Boh. Monogr. Cassid. iii. p. 142[4], and iv. p. 402[5]; Cat. Col. Ins. Brit. Mus. ix. p. 163[6]; Crotch, Proc. Acad. Phil. 1873, p. 78[7].

Cassida aurisplendens, Mann. Bull. Mosc. 1843, 2, p. 307[8].

Coptocycla aurisplendens, Boh. Monogr. Cassid. iii. p. 349[9], and iv. p. 452[10]; Cat. Col. Ins. Brit. Mus. ix. p. 185[11].

? *Cassida marylandica*, Herbst, Käfer, viii. p. 274[12].

Cassida bis-tripunctata, Herbst, loc. cit. p. 275[13].

Hab. North America [1 2 4–6], Middle, Southern, and Western States [7], Carolina [3], Maryland [12 13], Florida [5 6], California [8–11].—Mexico [9–11], Pinos Altos in Chihuahua (*Buchan-Hepburn*), Villa Lerdo in Durango, Jalapa, Misantla (*Höge*), Istapan, Guanajuato, San Andres Tuxtla, Juquila, Yolos (*Sallé*), Oaxaca (*Sallé, Höge*), Xucumanatlan, Chilpancingo, and Tepetlapa in Guerrero, Cuernavaca, Teapa (*H. H. Smith*), Yucatan (*Pilate, in coll. Oberthür*); Guatemala, Capetillo, Dueñas (*Champion*); Nicaragua, Chontales (*Janson*).

This insect is less abundant than *C. trisignata* within our limits. In some specimens the elytra have three very faint dilute blackish spots on each elytron, these being obsolete in pale examples (*aurisplendens*). *C. bicolor* is smaller than *C. trisignata* and has less expanded elytral margins. Some of its varieties are indistinguishable from that species.

61. Coptocycla succinea.

Coptocycla succinea, Boh. Monogr. Cassid. iii. p. 350[1], and iv. p. 452[2]; Col. Cat. Ins. Brit. Mus. ix. p. 185[3].

Hab. Mexico [1–3], Juquila (*Sallé*); Guatemala, Capetillo (*Champion*), Panzos (*Conradt*).

We have received five specimens of this species. *C. succinea*, the type of which is before me, is exceedingly closely allied to the pallid form of *C. bicolor* (*aurisplendens*), and only differs from it in having the discoidal fovea of the elytra almost or quite obsolete. The Guatemalan specimens are much larger than the Mexican type.

62. Coptocycla bivulnerata. (Tab. XI. fig. 24, ♀.)

Coptocycla bivulnerata, Boh. Monogr. Cassid. iii. p. 143[1], and iv. p. 403[2]; Cat. Col. Ins. Brit. Mus. ix. p. 163[3].

Hab. Mexico [1–3], Durango City, Jalapa (*Höge*), Guanajuato, San Andres Tuxtla (*Sallé*).

The numerous specimens here referred to this species were labelled with the MS. name *C. lurida*, Klug, in the Sallé collection. They agree very well with Boheman's description. *C. bivulnerata* may be known from all the allied forms by its oval (♂) or oblong (♀) shape. The elytra are foveate on the disc before the middle, the fovea, and a slender line on the outer part of the disc—in some specimens extending from a little below the humeral callus to beyond the middle, in others obsolete—being dilute fuscous. This species is widely distributed in Mexico, and we have received many specimens of it from Guanajuato and Jalapa.

63. **Coptocycla högbergi.** (Tab. XI. fig. 25, ♀.)

Coptocycla högbergi, Boh. Monogr. Cassid. iii. p. 158 [1], and iv. p. 405 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 165 [3].

Hab. MEXICO, Atoyac in Vera Cruz, Teapa in Tabasco, Tapachula in Chiapas (*H. H. Smith*), Vera Cruz (*Mus. Holm.* [1-3]), Temax in North Yucatan (*Gaumer*); BRITISH HONDURAS, Belize (*Blancaneaux*); GUATEMALA, San Isidro (*Champion*); NICARAGUA (*Sallé*), Chontales (*Janson*); PANAMA, Volcan de Chiriqui, David (*Champion*).

The elytra in this small species have on the disc before the middle an oblique dilute olivaceous patch, which is connected externally with a longitudinal similarly-coloured stripe extending from the humeral callus downwards, this stripe being continued in some specimens to the suture. The antennæ usually have the eighth and ninth joints infuscate. We have received about thirty specimens of *C. högbergi*. *C. vinula*, Boh., from Colombia, appears to be a very closely-allied form.

64. **Coptocycla emarginata.** (Tab. XI. fig. 26.)

Coptocycla emarginata, Boh. Monogr. Cassid. iii. p. 298 [1], and iv. p. 442 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 179 [3].

Deloyala emarginata, Dej. Cat. 3rd edit. p. 396 [4].

Coptocycla arizonæ, Crotch, Proc. Acad. Phil. 1873, p. 78 [5].

Deloyala fimbricollis, Sturm, in litt.

Hab. NORTH AMERICA, Arizona [5].—MEXICO [1-4] (*Sallé, ex coll. Sturm*), Chihuahua city, Durango city, Colima city, Matamoros Izucar, Misantla, Oaxaca, Tapachula (*Höge*), Saltillo in Coahuila (*Dr. Palmer*), Pinos Altos in Chihuahua (*Buchan-Hepburn*), Atlixco, Guanajuato, Orizaba, Cordova (*Sallé*), Cuernavaca (*Höge, H. H. Smith*), Soledad, Tepetlapa, Xucumanatlan, and Amula in Guerrero, Fortin in Vera Cruz (*H. H. Smith*), Chilpancingo, Cuernavaca (*Höge, H. H. Smith*); GUATEMALA [2] (*Scherzer* [3], *Sallé*), Zapote, Capetillo, San Gerónimo (*Champion*); COSTA RICA (*Van Patten*), Caché (*Rogers*).

A rather common insect in Mexico and Guatemala, extending northwards to within the frontier of the United States. The elytra (as in *C. tuberculata*) vary in colour

from sanguineous or vermilion-red to dilute flavo-testaceous; the margins have a large flavo-hyaline space before the middle, which is bordered with black (broadly in front and behind), except along the outer limb. In pallid examples the humeri are usually rufo-testaceous; the latter have usually a few scattered coarse punctures, but these are sometimes obsolete. The third joint of the antennæ is elongate, as long as the fourth. We are indebted to Dr. Horn for a specimen of *C. arizonæ*, Crotch; it differs in no way from Boheman's species. We figure an example from Soledad.

65. **Coptocycla annexa.** (Tab. XI. fig. 27.)

Coptocycla annexa, Boh. Monogr. Cassid. iii. p. 299[1], and iv. p. 442[2]; Cat. Col. Ins. Brit. Mus. ix. p. 179[3].

Hab. MEXICO, Matamoros Izucar, San Andres Tuxtla (*Sallé*), Jalapa, Misantla, Oaxaca (*Höge*), Teapa in Tabasco (*Sallé, Höge, H. H. Smith*); BRITISH HONDURAS, R. Hondo (*Blancaneaux*); GUATEMALA, Cahabon (*Champion*).

Not uncommon in Tabasco. Very closely allied to *C. emarginata*, but smaller, the elytra invariably dilute flavous or flavo-testaceous, with the subhyaline space on the margins more extended and narrowly bordered with piceous or fuscous within, this border being sometimes almost obsolete, the humeri smooth and not stained with rufo-testaceous. A specimen from Teapa is figured.

66. **Coptocycla tumida.** (Tab. XII. figg. 1; 1 *a*, profile.)

Subcordate, very convex, shining, flavo-testaceous; the elytra each with two fuscous-spotted flavo-testaceous fasciæ extending across the margin from the disc but not reaching the exterior limb—one very broad and transverse, at the base, the other narrower and oblique, a little beyond the middle,—a broad quadrangular space between the fasciæ and the rest of the margin flavo-hyaline; the antennæ flavo-testaceous, with the apical five joints black; beneath and the legs black, variegated with testaceous, the metasternum broadly flavous in front, the fasciæ on the elytral margins fuscous. Antennæ elongate, slender, the apical five joints thickened, joint 3 a little longer than 2 and very much shorter than 4. Prothorax about twice as broad as long, strongly sinuate at the base on either side of the median lobe, broadly expanded at the sides and in front, smooth; the disc deeply foveate at the base on either side of the median lobe, canaliculate behind, and deeply excavate at the sides; the margins reticulate and subhyaline. Elytra very much wider than, and more than three times as long as, the prothorax, deeply sinuate-emarginate at the base, with prominent rounded humeri; the disc uneven, moderately gibbous anteriorly, excavate on either side of the suture in front of this, bifoveate at the base, deeply irregularly foveate in the centre at about one-fourth from the base and also irregularly foveate towards the sides a little beyond the middle, hollowed laterally behind the humeral callus, and with rows of deep, coarse, dilute fuscous punctures, the interstices smooth and here and there connected by feebly-raised transverse callosities; the margins broadly expanded, becoming narrow at the apex, smooth and reticulate, separated from the disc by a row of very deep foveæ. Claws angularly dilated at the base.

Length 8½, breadth 7 millim.

Hab. COSTA RICA (*coll. Janson*).

One specimen, contained in Mr. O. E. Janson's collection. This species approaches *C. tuberculata* (Fabr.); but it has the elytra less gibbous and more coarsely punctured,

and the third joint of the antennæ shorter. The elytral margins are also differently coloured—the two fasciæ not extending to the outer limb and separated by a much less elongate flavo-hyaline space; the fasciæ are fuscous beneath, paler and more dilute above. The coloration resembles that of *Ctenochira fraterna*, Boh., and its allies.

67. **Coptocycla maculicollis.** (Tab. XII. figg. 2; 2 *a*, profile.)

Subrotundate, convex, shining, flavo-testaceous; the prothorax with various coalescent black markings on the disc, from which a broad sinuous ramus extends across the margins posteriorly; the elytra with the disc black, with some spots and longitudinal streaks at the base (including a short curved stripe outside the humeral callus), and three narrow curved angulated fasciæ on the posterior half (the middle one extending completely across), flavo-testaceous, a very broad black ramus extending across the margins at the base to the humeri, and the suture also black at the tip; the antennæ flavo-testaceous, with the apical two joints black; the legs and under surface flavo-testaceous, a large transverse patch on the metasternum, and the middle of the abdomen at the base, black. Antennæ elongate, slender, the apical five joints a little thicker than those preceding, joint 3 slightly longer than 2 and much shorter than 4. Prothorax twice as broad as long, moderately sinuate at the base on either side of the median lobe, broadly expanded at the sides and in front; the disc with a few widely scattered fine punctures, very deeply foveate on either side externally, and deeply foveate in the middle at the base; the margins subhyaline, except at the sides behind, and reticulate. Elytra very much wider than, and nearly three times as long as, the prothorax, rather feebly emarginate at the base, with moderately prominent rounded humeri; the disc very uneven, abruptly transversely gibbous below the base, and deeply excavate on either side of the suture in front of this, with rows of coarse deep punctures, which become finer at the sides and are placed in deep striæ towards the suture, the interstices smooth and here and there connected by feebly-raised transverse or oblique callosities, the humeral callus very prominent; the margins very broadly expanded, becoming narrow at the apex, deeply transversely excavate and irregularly foveolate in front, subhyaline, reticulate, and somewhat rugulose from a little below the base, and separated from the disc by a row of deep foveæ. Claws angularly dilated at the base.

Length 5¼, breadth 4½ millim.

Hab. GUATEMALA, Sinanja in Vera Paz (*Champion*).

One specimen. This species approaches *C. asperata*, Boh.; but it is much smaller and has very different prothoracic and elytral markings, those on the prothorax extending across the dilated outer margins, the prothorax itself deeply foveate on either side of the disc externally, the third joint of the antennæ shorter, &c.

68. **Coptocycla vilis.** (Tab. XII. fig. 3, ♀.)

Coptocycla vilis, Boh. Monogr. Cassid. iii. p. 357 [1], and iv. p. 454 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 186 [3].

Hab. MEXICO, Misantla, Jalapa, Oaxaca (*Höge*), Cordova, Juquila (*Sallé*), Atoyac (*H. H. Smith*), Teapa (*Sallé, H. H. Smith*), Yucatan [2 3] (*Pilate* [1], *Sallé*); GUATEMALA, Teleman and San Juan in Vera Paz (*Champion*); NICARAGUA, Chontales (*Janson*).

Boheman's description of this species was made from a pallid example, and on this account the insect is widely separated in his monograph from the allied *C. judaica*. In the fully-coloured examples the elytra have a common transverse fuscous mark before the middle (not mentioned by Boheman), and the disc slightly

variegated with the same colour, each of the punctures being also marked with a fuscous or castaneous dot. *C. vilis* differs from *C. judaica*, however, in having the third joint of the antennæ shorter than the fourth, the punctures of the elytra coarse and deep, and the elytra themselves more convex towards the base; the females are narrower, longer, and more ovate than the males. We figure a female specimen from Jalapa.

69. **Coptocycla proxima.** (Tab. XII. fig. 4.)

Coptocycla proxima, Boh. Monogr. Cassid. iii. p. 200[1], and iv. p. 421[2]; Cat. Col. Ins. Brit. Mus. ix. p. 169[3].

Hab. Mexico[1-3], Pinos Altos in Chihuahua (*Buchan-Hepburn*), Chilpancingo and Cuernavaca (*H. H. Smith*); Guatemala, Aceituno, Capetillo (*Champion*).

Of this species we have received numerous examples, varying in the width of the black vitta of the elytra—which extends along the outer part of the disc nearly to the apex and then runs rather obliquely inwards to the suture. The disc of the prothorax is testaceous, sometimes narrowly and obliquely bordered on either side with fuscous (this border in conjunction with that on the outer part of the disc of the elytra forming a common hexagonal ring); but in the two specimens from Chihuahua it is fuscous or piceous, the base excepted. The antennæ are testaceous; the third joint is a little longer than the second, and shorter than the fourth. On either side of the disc of the prothorax are some coarse scattered punctures, not mentioned by Boheman, whose type I have examined.

70. **Coptocycla evanescens.** (Tab. XII. figg. 5; 5 *a*, antenna.)

Subrotundate, convex, flavo-testaceous, shining, the margins subhyaline; the eyes black; the prothorax with a transverse black patch at the base, rounded anteriorly and occupying about half the disc; the scutellum black or piceous, usually flavous at the tip, in some specimens ferruginous; the elytra with a dilute rather broad blackish or piceous stripe on the outer part of the disc (in one specimen black and sharply defined, in others faint and evanescent), extending inwards to the suture at some distance before the apex, and forming (with the mark on the prothorax) an oblong annulus, the space enclosed dilute sanguineous or flavous: the antennæ testaceous, with the apical joint infuscate or black; beneath and the legs testaceous. Antennæ rather short, extending to very little beyond the base of the prothorax, slender, the apical five joints a little thickened, joint 3 short, not longer than 2. Prothorax twice as broad as long, broadly expanded and reticulate at the sides and in front, the disc shallowly grooved at the base on either side of the median lobe, the surface smooth. Elytra nearly three times as long as the prothorax, and much wider than it at the base, moderately deeply sinuate-emarginate in front, conjointly rounded at the apex, with prominent but obtuse humeri; the disc convex, hollowed behind the humeral callus, with rows of rather closely placed, moderately coarse punctures, which become very much finer, shallower, and more remote towards the suture and obsolete before the apex, the interstices quite flat, smooth; the margins broadly expanded and reticulate, becoming narrow at the apex, smooth, separated from the disc by a row of deep foveæ. Claws angularly dilated at the base.

Length $4\frac{2}{3}$–$5\frac{1}{2}$, breadth $4\frac{1}{3}$–$4\frac{2}{3}$ millim.

Hab. Nicaragua, Chontales (*Belt*, *Janson*); Panama, Bugaba, Volcan de Chiriqui, David (*Champion*).—Peru, Chanchamayo (*coll. Janson*).

Numerous examples. This species exactly resembles *C. circumnotata*, Boh., from the Amazons, in colour; but differs from it in the more transverse prothorax and the less deeply emarginate base of the elytra, the elytra with the punctures on the middle of the disc more remote from each other. The annulus on the elytra is usually faint. In one specimen from Bugaba the apical four joints of the antennæ are black above. A closely allied insect from Brazil (incorrectly labelled *Charidotis cognata*, Boh.) is contained in the Baly collection.

Some of the species placed in *Charidotis* by Boheman have similarly formed antennæ. The shorter annulus on the elytra (when present) will distinguish *C. evanescens* from *C. proxima*.

71. **Coptocycla virgulata.** (Tab. XII. figg. 6, 7.)

Coptocycla virgulata, Boh. Monogr. Cassid. iii. p. 327 [1], and iv. p. 448 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 182 [3].

Hab. MEXICO [1-3]; GUATEMALA, Zapote, Aceituno, and San Gerónimo (*Champion*).

Boheman's description of this species, the type of which is before me, was based upon a pallid example with the annulus on the elytra obliterated. One of the three examples found by myself in Guatemala has the annulus sharply defined, one shows the outline of it towards the base, and the third resembles the type. In the first of these (from Zapote), the prothorax has a broad transverse patch in the middle posteriorly, divided down the centre by a flavous line and not quite reaching the base; and the elytra have a rather narrow stripe on the outer part of the disc, extending nearly to the middle and then obliquely converging inwards to the suture, black, becoming castaneous posteriorly (forming with the marking on the prothorax a hexagonal annulus), the suture (except at the apex) and the annulus on the inner side dilute rufescent. The elytra are foveate in the centre before the middle. The antennæ have their third joint not longer than the second. The claws are angularly dilated at the base.

A specimen from Caché, Costa Rica (*Rogers*), seems to belong to the pallid variety of this species; but it has the discoidal fovea of the elytra almost obsolete.

We figure two Guatemalan specimens—one (fig. 6) showing the narrow annulus, the other (fig. 7) agreeing with the type.

72. **Coptocycla diluta.** (Tab. XII. fig. 8.)

Subrotundate, convex, dilute flavo-testaceous, shining; the prothorax with an indistinct transverse dilute olivaceous patch in the middle before the base, this being divided in the centre; the elytra with a rather narrow similarly-coloured annulus on the outer part of the disc, extending round the base to the scutellum and obliquely converging inwards beyond the middle but not nearly reaching the suture; the antennæ, legs, and under surface flavo-testaceous. Antennæ moderately long, slender, the apical five joints a little thickened, joint 3 short, not longer than 2, 4 and 5 elongate. Prothorax about twice as broad as long, broadly expanded at the sides and in front, rather deeply sinuate at the base on either side of the median

lobe; the disc almost smooth, feebly obliquely grooved on either side of the median lobe at the base; the margins subhyaline and reticulate. Elytra much wider than, and about three times as long as, the prothorax, rather deeply sinuate-emarginate at the base, with rounded not very prominent humeri; the disc convex, somewhat deeply foveate in the centre before the middle, with rows of very fine widely separated punctures, which become almost obsolete towards the apex, the interstices smooth and flat; the margins broadly expanded, becoming narrow at the apex, smooth, reticulate, and subhyaline, separated from the disc by a row of not very deep foveæ. Claws angularly dilated at the base.

Length 6, breadth 5 millim.

Hab. Nicaragua, Chontales (*Janson*).

One specimen, contained in Mr. O. E. Janson's collection. The narrow dilute olivaceous annulus on the elytra, extending round the base to the scutellum and obliterated posteriorly, will distinguish this obscure species from *C. virgulata* and other allied forms.

73. **Coptocycla sinuata.** (Tab. XII. fig. 9.)

Rounded-triangular, convex, shining, flavo-testaceous; the elytra each with three dilute fuscous spots on the disc—two placed transversely at about one-fourth from the base (one in the discal fovea, the other at the side) and one at the side a little below the middle,—and a similarly-coloured broad curved stripe on the margin, extending round the base in front (but not reaching the anterior edge) and partly hiding a broad flavo-testaceous fascia, obliquely converging inwards about the middle, and thence narrowly continued along the outer part of the disc to the apex, the suture very narrowly edged with black; the antennæ flavo-testaceous, with the apical five joints black; beneath black, the prothorax at the sides, and the abdomen with the sides very broadly, and the apex of each segment narrowly, flavo-testaceous; the legs testaceous, the intermediate and hind femora black, except at the apex. Antennæ elongate, slender, the apical five joints thickened, joint 3 slightly longer than 2 and much shorter than 4. Prothorax about twice as broad as long, moderately sinuate at the base on either side of the median lobe, smooth, broadly expanded at the sides and in front, the margins reticulate and subhyaline. Elytra very much wider than, and more than three times as long as, the prothorax, moderately emarginate at the base, with very prominent rather obtuse humeri; the disc strongly convex, deeply foveate in the centre at about one-fourth from the base, shallowly bifoveate at the base, and hollowed at the sides behind the humeral callus, with rows of exceedingly fine remote punctures, which on the median third become coarser at the sides, the interstices smooth and flat; the margins broadly expanded, becoming narrow at the apex, smooth and reticulate, subhyaline from a little below the base (except on the dark curved stripe), and separated from the disc by a row of deep foveæ. Claws angularly dilated at the base.

Length 7¼, breadth 6¼ millim.

Hab. Nicaragua, Chontales (*Belt*).

One specimen. This species somewhat resembles *C. egregia*, Boh.; but the elytra are not gibbous anteriorly, the discoidal fovea is deeper, and the curved sinuous stripe on the margins is very differently shaped, it extending obliquely inwards about the middle and then continued along the outer edge of the disc to the apex. There is apparently a broad flavo-testaceous fascia extending across the margins to the humeri, but it is hidden by the fuscous stripe.

74. **Coptocycla scapularis.** (Tab. XII. fig. 10.)

Rounded-triangular, rather broad, strongly convex, shining; flavo-testaceous, the elytra with a transverse patch on the margin at the base—extending narrowly inwards along the basal margin, but not reaching

the anterior border of the humerus,—a transverse or oblique mark on the inner part of the margin about the middle, two small spots on the outer part of the disc—the anterior one oblong and in a line with the discoidal fovea, the posterior one at the middle,—a small spot on the discoidal fovea, and the sutural edge very narrowly, black or blackish; the antennæ testaceous, with the apical five joints black; beneath black, the sides of the prothorax and of the abdomen testaceous; the legs testaceous. Antennæ elongate, extending far beyond the base of the prothorax, joints 3–6 slender, 7–11 thicker than those preceding, 3 very little longer than 2. Prothorax twice as broad as long, smooth, slightly depressed at the base on either side of the broad median lobe, broadly expanded and reticulate at the sides and in front. Elytra very much wider than, and about three times as long as, the prothorax, sinuate-emarginate at the base; the disc strongly transversely convex anteriorly and somewhat abruptly declivous beyond, very deeply foveate in the centre before the middle and longitudinally depressed at the sides below the humeral callus, very finely and rather remotely seriate-punctate, the punctures becoming coarser towards the sides, the interstices smooth and flat; the margins broadly expanded, becoming narrow at the apex, smooth, reticulate, separated from the disc by a row of coarse foveæ, subhyaline from a little below the base; the humeri prominent anteriorly, obtuse. Claws angularly dilated at the base.

Var. The transverse humeral patch faint or dilute, the other elytral markings partly or entirely obliterated.

Length 6–6¾, breadth 5–5½ millim.

Hab. Panama, Bugaba, Volcan de Chiriqui (*Champion*).

Numerous examples. This species is perhaps nearest allied to *C. profligata*, Boh.; but it is much larger and more convex, and the elytra are relatively wider anteriorly, with more prominent humeri and a deeper discoidal fovea. The elytra are almost gibbous below the base.

75. **Coptocycla duplex.** (Tab. XII. figg. 11; 11 *a*, profile.)

Subtriangular, very convex, shining, rufo- or flavo-testaceous, the elytra with a broad ramus of this colour at the base extending across the margins to the humeri; the dilated margins of the prothorax, and those of the elytra from a little below the base, flavo-hyaline; the antennæ flavo-testaceous, with the apical four joints (the tip of the eleventh excepted) black; the legs and under surface flavo-testaceous. Antennæ moderately long, the five outer joints thicker than those preceding, joint 3 a little longer than 2 and shorter than 4. Prothorax nearly twice as broad as long, moderately sinuate at the base on either side of the broad median lobe, the latter obliquely grooved at the sides and with a few fine punctures; the margins broadly expanded. Elytra very much wider than, and about three times the length of, the prothorax, narrowing from the base, the base rather deeply emarginate, the humeri prominent, obtuse; the disc very convex, rather abruptly declivous posteriorly, deeply foveate in the centre before the middle and bifoveate at the base, hollowed at the sides behind the humeral callus, with rows of widely separated fine punctures, which are sometimes fuscous in colour, the interstices smooth and flat; the margins moderately expanded, becoming very narrow at the apex, smooth and reticulate, separated from the disc by a row of deep foveæ. Claws angularly dilated at the base.

Length 6–6¾, breadth 5–5½ millim.

Hab. Mexico, Tapachula in Chiapas (*Höge*); Guatemala, Las Mercedes (*Champion*).

Three examples, all from the Pacific slope, and from not very distant localities. This species resembles *C. ventricosa*, Boh.; but it is much smaller and the elytra are not abruptly gibbous. From the somewhat similarly-coloured *C. profligata*, Boh., it may be known by its larger size, subtriangular shape, and more gibbous elytra, the latter much more deeply foveate on the disc.

76. **Coptocycla marculenta.** (Tab. XII. fig. 12, ♀.)

Coptocycla marculenta, Boh. Monogr. Cassid. iii. p. 336 [1], and iv. p. 450 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 184 [3].

Hab. MEXICO [1–3], San Andres Tuxtla (*Sallé*).

We have received two specimens of this obscure species. *C. marculenta* is exceedingly like a pallid *C. annexa*, Boh., with which species it was mixed in the Sallé collection; but is broader, and also differs from it in having the elytral margins entirely subhyaline posteriorly (the faint fuscous line on the outer part of the disc not extending across the margin to the exterior limb at one-third from the apex, as in that species). The flavo-testaceous colour extends across the elytral margins nearly to the humeri, a character distinctly visible in the type, but not mentioned by Boheman. The third joint of the antennæ is a little longer than the second, and shorter than the fourth. The male is shorter and more rotundate than the female. The type from the Stockholm Museum is figured.

77. **Coptocycla profligata.** (Tab. XII. fig. 13.)

Coptocycla profligata, Boh. Monogr. Cassid. iv. p. 446 [1].

Coptocycla bifoveolata, Sturm, in litt.

Hab. MEXICO [1] (*Sallé, ex coll. Sturm*), Guanajuato, Etla, Orizaba, Cordova, Yolos, Juquila (*Sallé*), Chilpancingo, Cuernavaca (*H. H. Smith*), Misantla, Jalapa (*Höge*); BRITISH HONDURAS, R. Sarstoon (*Blancaneaux*); GUATEMALA (*Sallé*), Cerro Zunil, Capetillo, Dueñas, San Gerónimo (*Champion*); COSTA RICA (*Van Patten*), Volcan de Irazu (*Rogers*).

An abundant Central-American insect. *C. profligata*, the type of which is before me, is compared by Boheman with *C. immunda* (a pale variety of *C. signifera*, Herbst, =*guttata*, Boh.); but it is, in reality, a very close ally of *C. bicolor*—some of the specimens of the species in the Sallé collection were indeed so labelled,—from which it differs in having a dark transverse fascia on the elytral margins at the base. The third joint of the antennæ is slightly longer than the second.

78. **Coptocycla erratica.** (Tab. XII. fig. 14, ♂.)

Coptocycla erratica, Boh. Monogr. Cassid. iii. p. 201 [1], and iv. p. 421 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 169 [3].

Coptocycla varicornis, Boh. Monogr. Cassid. iii. p. 348 [4], and iv. p. 452 [5]; Cat. Col. Ins. Brit. Mus. ix. p. 185 [6].

Coptocycla meticulosa, Boh. Monogr. Cassid. iii. p. 351 [7], and iv. p. 452 [8]; Cat. Col. Ins. Brit. Mus. ix. p. 185 [9].

Coptocycla rufosignata, Sturm, in litt.

Hab. Mexico [1-3 5-9] (*Chevrolat* [4]; *Sallé, ex coll. Sturm*), Puebla, Playa Vicente, Tuxtla, Cordova, Vera Cruz, Juquila (*Sallé*), Cerro de Plumas, Jalapa, Misantla, Tapachula (*Höge*), Teapa in Tabasco (*Sallé, Höge, H. H. Smith*); British Honduras, R. Hondo (*Blancaneaux*); Guatemala, Chiacam and San Juan in Vera Paz, San Isidro, Zapote, Capetillo (*Champion*); Nicaragua, Chontales (*Janson*); Costa Rica (*coll. Janson*); Panama, Bugaba, Volcan de Chiriqui (*Champion*).—Colombia [1-3].

This is a common insect in Central America. It varies greatly in size, and also in the colour of the antennæ, and of the under surface, the elytral markings, too, are sometimes obliterated. With the types of Boheman's insects before me, I am unable to distinguish more than one variable species. *C. meticulosa* was based upon a discoloured male example of *C. erratica*, with the apical five joints of the antennæ apparently (?) infuscate; the characteristic transverse ferruginous spot on the suture before the middle is very distinct in the type, though it is not mentioned by Boheman. *C. varicornis* (the type of which is contained in the British Museum) has the elytral markings obliterated and the abdomen entirely testaceous, characters of no importance when a long series of specimens is examined; it has been received from a number of localities in company with *C. erratica.* The elytra usually have an indeterminate vitta on the outer part of the disc—extending from a little in front of the humeral callus to beyond the middle and then curving inwards to the suture,—and a common transverse spot on the suture before the middle, ferruginous or fuscous, the rather coarse, scattered, subserially arranged punctures being similarly coloured. The antennæ are testaceous, and usually have the ninth and tenth joints, and sometimes the eighth also, infuscate; but in some specimens (from Chiriqui) they are almost entirely testaceous, and in others the apical joint is infuscate, except at the tip; the third joint is a little longer than the second, and shorter than the fourth. Several of the Chiriqui examples are unusually large, others, again, from Teapa are small, the species varying considerably in this respect. In some specimens the elytra are subseriately punctured to the apex; the transverse sutural spot is nearly always distinct, even in the variety *varicornis.* We figure a male example from Tuxtla.

79. **Coptocycla angularis.** (Tab. XII. fig. 15, ♂.)

Rounded-triangular, moderately convex, flavo-testaceous; the prothorax with an indistinct oblong dilute fuscous or castaneous patch on the middle of the disc behind, this being excised in front; the elytra with a common transverse subquadrate patch across the suture before, and an irregular fascia beyond the middle, some irregular markings, the punctures, and a broad ramus on the margin at the base extending from the disc outwards, dilute castaneous or fuscous; the antennæ flavo-testaceous, with the ninth and tenth joints more or less infuscate; the legs flavo-testaceous; the body beneath black, marked with yellow at the sides, the abdomen with the sides and apex broadly flavo-testaceous. Antennæ moderately long, slender, the apical five joints a little thickened, joint 3 short, not longer than 2. Prothorax nearly twice as broad as long, rather feebly sinuate at the base on either side of the median lobe, broadly expanded at the sides and in front, smooth; the disc obliquely grooved on either side of the median lobe behind; the margins hyaline and reticulate. Elytra very much wider than, and about three times as

long as, the prothorax, rather feebly sinuate-emarginate at the base, with prominent subangular humeri; the disc moderately convex, bifoveate at the base, deeply foveate in the centre before the middle, and longitudinally depressed towards the sides beyond the middle, with interrupted rows of coarse deep punctures, the interstices smooth, and here and there transversely connected; the margins broadly expanded, becoming narrow at the apex, smooth and reticulate, hyaline from a little below the base, and separated from the disc by a row of deep foveæ. Claws angularly dilated at the base.

Length $4\frac{1}{2}$–5, breadth $3\frac{3}{4}$–$4\frac{1}{4}$ millim.

Hab. NICARAGUA, Granada (*Sallé*); COSTA RICA (*colls. Baly and Janson*).

Four specimens. Closely allied to *C. erratica*, Boh., but differing from it in the elytra having a broad castaneous ramus extending from the disc across the margins at the base. From *C. signifera*, Herbst (=*guttata*, Oliv.), it may be known by its more triangular shape, and by the coarser punctuation and different markings of the elytra. The elytra have a transverse subquadrate dark patch across the suture before the middle, this being larger than in *C. erratica*.

CTENOCHIRA.

Coptocycla, Sect. II., Boheman, Monogr. Cassid. iii. p. 430.
Ctenochira, Chapuis, Gen. Col. xi. p. 409 (1875).

This genus, or section of *Coptocycla*, contains nearly one hundred described species. It is probably confined to Tropical America, ranging as far north as the highlands of Mexico. *Ctenochira* differs from *Coptocycla* * in having the claws of the anterior tarsi angularly dilated, and those of the intermediate and hind tarsi pectinate, at the base. Neither Boheman nor Chapuis appears to have noticed this, both authors giving the claws as "pectinate." Twenty-two species are here enumerated from within our limits, but some of these are probably not really distinct. Certain groups of species are indicated, the members of which differ *inter se* in various details of coloration, *e. g.*: (1) *C. plicata*, *C. melanota*, *C. sagulata*, and *C. ståli*; (2) *C. vivida*, *C. tabida*, and *C. punicea*; and (3) *C. infantula*, *C. palmata*, and *C. dissimilis*. Many of these forms have been collected together in great abundance by Mr. H. H. Smith at Teapa in Tabasco. The antennæ have the third joint short, not longer than the second.

The elytral margins partly infuscate, with an oblong translucent space	Species 1.
The elytral margins with two dark fasciæ (obsolete and the black discoidal patch simply emarginate at the sides in some specimens of *C. ståli*)	Species 2–5.
The elytral margins with a single (post-median) dark fascia	Species 6–8.
The elytral margins partly sanguineous	Species 9.
The elytral margins flavous, the inner part black from the middle forwards . . .	Species 10.
The elytral margins entirely flavous.	
The disc entirely or in great part black	Species 11, 12.
The disc with a sharply defined black annulus along the outer part	Species 13.
The disc narrowly bordered externally with black or sanguineous	Species 14–16.
The disc black, reticulated with yellow	Species 17.

* The Central-American species only have been examined.

The disc black, with well-defined yellow spots	Species 18, 19.
The disc black, with an annulus on the anterior half and a curved post-median fascia, confluent behind, yellow	Species 20.
The disc black, with a common cruciform yellow patch	Species 21.
The disc yellow, with the punctures fuscous	Species 22.

1. **Ctenochira bifenestrata.** (Tab. XII. figg. 16, 17.)

Coptocycla bifenestrata, Boh. Monogr. Cassid. iii. p. 480[1], and iv. p. 477[2]; Cat. Col. Ins. Brit. Mus. ix. p. 199[3].

Hab. Nicaragua, Chontales (*Janson*); Panama, Volcan de Chiriqui (*Champion*).—Venezuela, Caracas[1-3].

Two specimens from Central America apparently belong to this species. One, from Chiriqui (fig. 16), has the disc of the elytra brownish-black, faintly reticulated with transverse yellow markings, and the oblong hyaline space on the margins broadly bordered with brownish-black externally; the other (fig. 17), from Chontales, has the disc of the elytra testaceous, with a large, common, cordate patch at the base, and two interrupted fasciæ beyond the middle, pitchy-brown, the oblong hyaline space on the margins narrowly bordered externally with dilute brown. The antennæ have their joints 8–10 more or less infuscate.

C. bipellucida, Boh., from Cayenne, is perhaps a pale form of the same species.

2. **Ctenochira hectica.** (Tab. XII. fig. 18, ♂.)

Coptocycla hectica, Boh. Monogr. Cassid. iii. p. 471[1], and iv. p. 475[2]; Cat. Col. Ins. Brit. Mus. ix. p. 198[3].

Deloyala lateralis, Sturm, in litt.

Hab. Mexico[1-3] (*Sallé, ex coll. Sturm*), Puebla (*Sallé*), Acapulco, Chilpancingo, Cuernavaca, Atoyac (*H. H. Smith*), Cordova, Oaxaca, Tapachula (*Höge*), Teapa in Tabasco (*Sallé, H. H. Smith*); Guatemala, Zapote, San Gerónimo (*Champion*); Costa Rica (*Van Patten*).

Sent in plenty from Teapa. A very distinct species, easily recognizable by the spotted prothorax and the two transverse ferruginous fasciæ (separated by a hyaline space) on the elytral margins. We figure a specimen from Atoyac.

3. **Ctenochira fraterna.** (Tab. XII. figg. 19; 20, var.)

Coptocycla fraterna, Boh. Monogr. Cassid. iii. p. 473[1], and iv. p. 476[2]; Cat. Col. Ins. Brit. Mus. ix. p. 198[3].

Hab. Nicaragua, Chontales (*Belt, Janson*); Panama, Bugaba, Volcan de Chiriqui, David (*Champion*).—Colombia[1-3].

Var. *α*. The spots on the prothorax almost obliterated, and the fasciæ on the elytral margins abbreviated. (Var. *a*, Boh.)

Hab. NICARAGUA, Chontales (*Belt*).—COLOMBIA.

Var. *β*. The elytra with a broad common transverse patch at the base, a smaller transverse mark below it, the two connected along the suture, two or three fasciæ below the middle, and some scattered spots, black or piceous; the scutellum infuscate or piceous. (Fig. 20.)

Hab. PANAMA, Bugaba, Caldera, and David (*Champion*).

The typical form is not uncommon in Chiriqui. The variety β (fig. 20), of which three specimens only have been obtained, is connected with the type by intermediate gradations; it closely resembles *C. dissimilis*, but may be known from it by the additional fascia on the elytral margins.

4. **Ctenochira lugubris.** (Tab. XII. fig. 21.)

Coptocycla lugubris, Boh. Monogr. Cassid. iii. p. 478 [1]; Cat. Col. Ins. Brit. Mus. ix. p. 199 [2].
Coptocycla lugubrina, Boh. Monogr. Cassid. iv. p. 477 [3].

Hab. PANAMA, Bugaba (*Champion*).—COLOMBIA [2, 3] (*Chevrolat* [1]).

One specimen, agreeing perfectly with a specimen from Chevrolat's collection (probably the type) in the British Museum. In this species the prothorax has a large subtriangular black patch, marked with three yellow spots—one median and one on either side (the latter not surrounded with black externally in the type); the scutellum black; the elytra with the disc, and two transverse fasciæ extending across the margins nearly to the outer limb, black, the black deeply excised on either side of the disc at the middle.

5. **Ctenochira ståli.** (Tab. XII. fig. 22, ♂.)

Coptocycla ståli, Boh. Monogr. Cassid. iv. p. 480 [1].
Ctenochira semilobata, Wag. Mittheil. Münch. ent. Ver. i. p. 55 (part.) [2].
Coptocycla punicea, Boh., var. *a*, Monogr. Cassid. iv. p. 482 [3].

Hab. MEXICO [2, 3], Toxpam, Cordova, Orizaba, Playa Vicente (*Sallé* [1]), Teapa in Tabasco (*H. H. Smith*); NICARAGUA, Chontales (*Belt, Janson*).

Sent in numbers from Teapa. This insect is closely allied to *C. plicata*; but differs from it in having the black dorsal patch of the elytra more or less emarginate on either side at the middle, and usually with two broad black rami extending outwards from it (to a greater or less extent) on to the margin, but not reaching the outer limb. The elytra also have some small yellow or testaceous spots near the suture, which are rarely absent. In pallid examples the disc of the prothorax and of the elytra is castaneous. The scutellum is yellow. The antennæ are flavous, with the tip of the apical joint black.

Two species were confused by Wagener [2] under the name *semilobata*: the Mexican specimens are referable to *C. ståli*; those from Colombia (one of which has been kindly

lent me by M. René Oberthür) to *C. semilobata*. The latter differs from the present insect in the relatively broader elytra and more prominent humeri, and in having the black dorsal patch more broadly and more deeply emarginate at the sides; the discoidal patch on the prothorax, too, being parallel at the sides and acutely produced in front (instead of triangular as in *C. ståli*). Boheman's var. *a* of *C. punicea*[3], of which there is a specimen in the Sallé collection with his ticket attached, is evidently a pallid example of *C. ståli*. We figure a well-marked male example from Teapa.

6. **Ctenochira infantula.** (Tab. XII. figg. 23; 24, var. *salebrata*.)

Coptocycla infantula, Boh. Monogr. Cassid. iv. p. 477[1].

Ctenochira uniramosa, Wag. Mittheil. Münch. ent. Ver. i. p. 66[2].

Hab. MEXICO[2] (*coll. Baly*[1], *Sallé*); COSTA RICA (*Sallé*).

Var. *α*. The disc of the elytra dilute castaneous, marked with a few small yellow spots; the scutellum yellow. (Fig. 24.)

Coptocycla salebrata, Boh. Monogr. Cassid. iv. p. 478[3].

Hab. COSTA RICA (*Deyrolle*[3], *in coll. Baly*).

Var. *β*. Smaller; the elytra much more finely punctured, especially towards the apex, with flatter interstices and shallower discoidal foveæ, the disc black; the scutellum yellow.

Hab. PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).

Of this insect I have seen three specimens of the typical form, including the type; one of these has the scutellum yellow and the elytral punctuation finer. *C. salebrata* is based upon a pallid example of the same species; and the var. *β*, of which four specimens have been obtained, is probably a small smooth form of it. *C. infantula* closely resembles *C. lugubris*, but may be known from it by the single (post-median) transverse black fascia on the elytral margins. We figure Boheman's types, both of which are contained in the Baly collection.

7. **Ctenochira palmata.** (Tab. XIII. figg. 1; 2, var. *bilobata*.)

Coptocycla palmata, Boh. Monogr. Cassid. iii. p. 487[1], and iv. p. 479[2]; Cat. Col. Ins. Brit. Mus. ix. p. 200[3].

Coptocycla bilobata, Boh. Monogr. Cassid. iii. p. 486[4], and iv. p. 478[5]; Cat. Col. Ins. Brit. Mus. ix. p. 200[6].

Hab. MEXICO[2,3,5,6] (*Chevrolat*[1]; *Mus. Berol.*[4]), Cordova (*Sallé*), Cerro de Plumas, Oaxaca (*Höge*); GUATEMALA, Las Mercedes, Capetillo (*Champion*).

C. bilobata only differs from *C. palmata* in having the scutellum and the eighth and ninth joints of the antennæ black, and it cannot be maintained as distinct, these characters being variable; the single specimen from Oaxaca is intermediate between the two forms. The species is apparently scarce, one or two specimens only having been received from each of the localities mentioned. *C. palmata* is closely allied to

C. infantula, but may be known from it by the flavous slightly raised reticulations on the disc of the elytra. In pallid examples the dark parts of the prothorax and elytra are brownish-testaceous or castaneous.

8. **Ctenochira dissimilis.** (Tab. XII. fig. 25.)

Coptocycla dissimilis, Boh. Monogr. Cassid. iii. p. 488[1], and iv. p. 479[2]; Cat. Col. Ins. Brit. Mus. ix. p. 200[3].

Hab. Mexico[1–3], Teapa (*Pilate, in coll. Baly*).

There is a single specimen of this species in the Baly collection, agreeing perfectly with the type. *C. dissimilis* is closely allied to *C. palmata* (with the antennæ coloured as in the var. *bilobata*); but differs from it in the much more coarsely punctured elytra, the disc of the latter being yellow, with a common sutural patch before the middle, a short streak below the shoulders, an oblong patch at the sides below the middle (connected with the rather narrow, post-median, transverse, marginal fascia), and some scattered spots, black. The type from the Stockholm Museum is figured.

9. **Ctenochira rubrocincta.** (Tab. XIII. figg. 3, ♀; 4, var. *carnifex*, ♀.)

Coptocycla rubrocincta, Boh. Monogr. Cassid. iii. p. 498[1], and iv. p. 483[2]; Cat. Col. Ins. Brit. Mus. ix. p. 201[3].

Hab. Mexico[1–3], Cordova (*Sallé*); Nicaragua, Chontales (*Janson*); Costa Rica (*Van Patten*); Panama, Volcan de Chiriqui (*Champion*).—Venezuela, Caracas[1–3]; Brazil[1–3].

Var. *α*. The inner part of the elytral margins from the base to the middle, as well as the entire disc, black.

Hab. Mexico, Cordova (*Sallé*), Atoyac in Vera Cruz (*H. H. Smith*); Guatemala, Chacoj in Vera Paz (*Champion*); Panama, Volcan de Chiriqui (*Champion*).

Var. *β*. The disc of the prothorax and of the elytra, and the scutellum, obscure sanguineous or sanguineous. (Fig. 4.)

Coptocycla carnifex, Boh. Monogr. Cassid. iii. p. 497[4], and iv. p. 483[5]; Cat. Col. Ins. Brit. Mus. ix. p. 201[6].

Hab. Mexico[4–6], Puebla, Cordova (*Sallé*), Jalapa (*Höge*), Fortin in Vera Cruz (*H. H. Smith*).

The typical form of this species, which may be known from *C. plicata* and its allies by the elytral margins being suffused with dilute sanguineous internally, has been collected in numbers in Chiriqui. Of the vars. *α* and *β* (*carnifex*, Boh.) single specimens only have been collected at each of the localities quoted; the var. *α* merely differs from *C. melanota*, Boh. (which is probably an analogous variety of *C. plicata*), by the colour of the elytral margins. Some of the specimens from Mexico and Chiriqui are intermediate between *C. carnifex* and *C. rubrocincta*. The disc of the elytra varies in colour from entirely black to sanguineous; it has usually a very large triangular

black patch. We figure a typical *C. rubrocincta* from Chiriqui and a specimen of the var. *carnifex* from Fortin.

10. **Ctenochira melanota.** (Tab. XIII. fig. 5, ♂.)

Coptocycla melanota, Boh. Monogr. Cassid. iii. p. 451[1], and iv. p. 472[2]; Cat. Col. Ins. Brit. Mus. ix. p. 196[3].

Hab. MEXICO, Teapa[1–3] (*Sallé, Höge, H. H. Smith*).

This insect is probably nothing more than a local variety of *C. plicata*,—though it is widely separated from that species in Boheman's Monograph,—from which it differs in having the inner part of the elytral margins from the base to the middle, as well as the entire disc, black. The scutellum is usually black, sometimes partly yellow. The black on the elytral margins is broadest at the middle, showing no tendency to extend outwards at the base (the converse being the case in *C. ståli*), the rest of the margin being clear flavo-hyaline. Sent in plenty from Teapa, in company with *C. ståli* and *C. plicata*. Boheman[1–3] also quotes New Granada (Colombia) as a locality; but his Colombian specimens probably belong to *C. rubrocincta*, as here understood.

11. **Ctenochira plicata.** (Tab. XIII. fig. 6, ♀.)

Coptocycla plicata, Boh. Monogr. Cassid. iii. p. 493[1], and iv. p. 482[2]; Cat. Col. Ins. Brit. Mus. ix. p. 200[3].

Ctenochira flavoscutellata, Wag. Mittheil. Münch. ent. Ver. i. p. 65[4].

Hab. MEXICO[1–4] (*Sallé, ex coll. Sturm*), Tuxtla, Cordova (*Sallé*), Fortin in Vera Cruz, Teapa in Tabasco (*H. H. Smith*); PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).

This is one of several closely allied forms named by Boheman as distinct species, and which merely differ *inter se* in slight details of coloration; but as these forms are fairly constant I have retained them as distinct. The elytra in *C. plicata* have a large, black, parallel-sided patch occupying nearly the whole of the disc, the black not extending on to the margins about the middle as in *C. melanota*, nor emarginate laterally and with the black extending on to the margins before and behind the emargination as in *C. ståli*. The scutellum is flavous in the numerous Mexican specimens received, black in the two from Chiriqui. The prothorax has a very large, triangular, black patch occupying nearly the whole of the disc. Pallid examples have the dark parts castaneous. Boheman also gives[1–3] North America as a locality, but the insect is not known to me from north of the Mexican State of Vera Cruz.

12. **Ctenochira sagulata.** (Tab. XIII. fig. 7, ♂.)

Coptocycla sagulata, Boh. Monogr. Cassid. iv. p. 481[1].

Hab. NICARAGUA, Chontales (*Belt*); COSTA RICA[1], Caché (*Rogers*).

I have seen four (♂) specimens of this insect, including the type from the Stockholm

Museum, which only differs from typical *C. plicata* in having the black dorsal patch of the elytra narrower and not extending so far posteriorly, and sometimes with a narrow flavous fascia behind. The scutellum is black. The elytral margins are perhaps a little broader than in the male of *C. plicata*, the elytra themselves obtuse at the apex in this sex. The type from the Stockholm Museum is figured.

13. **Ctenochira vivida.** (Tab. XIII. figg. 8; 9, 10, vars.)

Coptocycla vivida, Boh. Monogr. Cassid. iii. p. 517 [1], and iv. p. 485 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 203 [3].

Hab. MEXICO [1-3], Playa Vicente, Tuxtla, Cordova (*Sallé*), Teapa in Tabasco (*H. H. Smith*); HONDURAS (*Mus. Brit.*); PANAMA, Bugaba (*Champion*).

Var. *α*. The black annulus on the elytra narrower and not reaching the apex, obliquely truncate or rounded behind, the space enclosed varying in colour from flavous to sanguineous, and with irregular black spots, which are sometimes obliterated. (Fig. 9.)

Ctenochira nigrocincta, Wag. Mittheil. Münch. ent. Ver. i. p. 55 [4].

Hab. COSTA RICA (*Sallé*); PANAMA (*Mus. Brit.*), Bugaba, Volcan de Chiriqui (*Champion*).—COLOMBIA, Canoas [4].

Var. *β*. The black annulus on the elytra still narrower, extending almost to the apex, nearly obliterated in pale specimens, the space enclosed usually flavo-testaceous, broadly bordered with sanguineous, sometimes entirely sanguineous, and with the punctures placed upon dilute fuscous dots. (Fig. 10.)

Coptocycla tabida, Boh. Monogr. Cassid. iii. p. 511 [5], and iv. p. 485 [6]; Cat. Col. Ins. Brit. Mus. ix. p. 202 [7].

Hab. MEXICO [5-7], Playa Vicente, Cordova (*Sallé*), Cerro de Plumas (*Höge*), Fortin in Vera Cruz, Teapa in Tabasco (*H. H. Smith*); PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).

Three well-marked forms occur of this variable species:—(1) (*C. vivida*), with an exceedingly broad black annulus on the elytra; (2) (var. *α*, *C. nigrocincta*), with the annulus a little shorter and not so wide, the space enclosed usually irregularly spotted with black; (3) (var. *β*, *C. tabida*), with the annulus still narrower, sometimes not reaching the suture behind, the space enclosed bordered within with sanguineous or dilute sanguineous, or entirely of that colour. These forms are connected by intermediate gradations, and all three have been collected together at the same localities in Mexico and in the State of Panama; so there can be little doubt that they belong to one variable species. Most of the Panama specimens of the typical form and of the var. *tabida* have the space enclosed by the annulus sanguineous. *C. nigrocincta*, Wag., the type of which has been lent me by M. René Oberthür, is based upon a specimen of the var. *α* with the flavous dorsal patch on the elytra irregularly marked with black, and the black patch on the prothorax reduced in size; some of the Panama examples, and the one from Costa Rica, scarcely differ from it. *C. vivida* is a very variable and abundant Central-American insect, and *C. punicea* is probably a pale variety of it.

C. sertata, Boh. (=*varians*, Wag.), is an allied form occurring in Tropical South America. We figure a typical (♀) *C. vivida* from Teapa; a specimen (♂) of the var. *nigrocincta* from Chiriqui; and a brightly-coloured example (♀) of the var. *tabida* from Chiriqui.

14. **Ctenochira punicea.** (Tab. XIII. fig. 11, ♀.)

Coptocycla punicea, Boh. Monogr. Cassid. iii. p. 494[1], and iv. p. 482[2]; Cat. Col. Ins. Brit. Mus. ix. p. 200[3] (excl. var. *a*).

Hab. Mexico[1–3], Acapulco, Teapa in Tabasco (*Höge*, *H. H. Smith*), Playa Vicente, Cordova (*Sallé*), Cerro de Plumas (*Höge*), Temax in North Yucatan (*Gaumer*); British Honduras, R. Hondo (*Blancaneaux*); Guatemala, Panzos (*Champion*); Nicaragua (*Belt*, *Janson*); Costa Rica (*coll. Baly*).

This insect differs from some of the varieties of *C. vivida* only in its paler colour—the black patch on the prothorax being replaced by a sanguineous edging and some small similarly-coloured spots, and the black annulus on the elytra replaced by a narrow marginal stripe,—and in having the eighth and ninth joints of the antennæ infuscate. This last-mentioned character, however, is not constant. Boheman's description was taken from an example with the disc of the elytra dilute sanguineous: in the specimens before me it is flavo-testaceous, with the punctures and margins sanguineous. Sent in abundance from Teapa, in company with *C. vivida* and its var. *tabida*.

15. **Ctenochira plebeja.** (Tab. XIII. fig. 12.)

Coptocycla plebeja, Boh. Monogr. Cassid. iii. p. 516[1], and iv. p. 485[2]; Cat. Col. Ins. Brit. Mus. ix. p. 203[3].

Coptocycla cincta, Sturm, in litt.

Hab. Mexico[1–3] (*Sallé*, *ex coll. Sturm*), Matamoros Izucar, Playa Vicente, Cordova (*Sallé*), Cerro de Plumas, Jalapa (*Höge*), Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*); Nicaragua, Chontales (*Belt*, *Janson*).

Sent in plenty from Teapa, in company with *C. vivida*, *C. punicea*, and *C. hieroglyphica*. It is nearest allied to *C. punicea*, from which it may be distinguished by the definite markings on the prothorax and by the antennæ having only the tip of the apical joint black. Boheman's description appears to have been made from specimens with the dark markings on the thorax partly obliterated; in most of the examples before me the prothorax has a large subtriangular black patch, enclosing nine flavous spots (as in *C. cumulata*), these varying in size and often becoming more or less confluent. In the specimens from Chontales the dark markings on the prothorax are reduced to small disconnected spots. We figure a specimen from Atoyac.

16. **Ctenochira coronata.** (Tab. XIII. figg. 13, ♀; 14, ♂, var.)

Coptocycla coronata, Boh. Monogr. Cassid. iii. p. 515[1], and iv. p. 485[2]; Cat. Col. Ins. Brit. Mus. ix. p. 203[3].

Hab. MEXICO [1–3], Chilpancingo, Atoyac (*H. H. Smith*), Matamoros Izucar, Panistlahuaca in Oaxaca (*Sallé*), Misantla, Tapachula (*Höge*); GUATEMALA, Zapote (*Champion*).

Apparently a scarcer insect than most of the allied forms. *C. coronata* resembles *C. hieroglyphica*, but it has the rows of punctures on the elytra less interrupted by flavous reticulations, the punctures themselves placed in deep striæ towards the suture posteriorly; the antennæ usually with the eighth and ninth joints infuscate or black; and the flavous spots on the discoidal patch of the prothorax more extended, the central ones often forming a coroniform mark. In a variety from Matamoros Izucar the elytra have a large black patch at the base, not extending to the scutellum. We figure a typical *C. coronata* from Chilpancingo and a variety from Tapachula.

17. **Ctenochira hieroglyphica.** (Tab. XIII. figg. 15, ♂; 16, ♀, var.)

Coptocycla hieroglyphica, Boh. Monogr. Cassid. iii. p. 503 [1], and iv. p. 484 [2]; Cat. Col. Ins. Brit. Mus. ix. p. 201 [3].

Hab. MEXICO [1–3], Playa Vicente, Cordova, Tuxtla, Orizaba (*Sallé*), Jalapa (*Höge*), Atoyac (*H. H. Smith*), Teapa in Tabasco (*Höge, H. H. Smith*); GUATEMALA, Senahu, San Juan, Teleman, La Tinta, and Sinanja, all in Vera Paz (*Champion*).

Var. α. The discoidal black patch on the prothorax with a single arcuate flavous spot before the base; the punctures on the elytra much finer and shallower towards the apex, the flavous reticulations larger and tending to form broad fasciæ. (Fig. 16.)

Hab. COSTA RICA (*Van Patten*); PANAMA, Veragua [2 3].

Var. β. The punctures on the elytra coarse and placed in deep striæ towards the suture posteriorly, the flavous reticulations usually less distinct.

Hab. GUATEMALA, Las Mercedes, Capetillo, San Gerónimo (*Champion*); NICARAGUA, Chontales (*Belt, Janson*).

Var. γ. The discoidal black patch on the prothorax with a single transverse flavous mark in front; the elytra with a large cordate black patch at the base, extending to the scutellum, and a broad space beyond it flavous, the sides only of the disc variegated with black, the punctures coarse and placed in deep striæ behind.

Hab. GUATEMALA, San Isidro (*Champion*). One specimen.

The typical form of this species is not uncommon in the Mexican States of Vera Cruz and Tabasco, and also in Vera Paz. Of the var. α, which is perhaps distinct, we have only a single specimen. The var. β, which is not rare in Guatemala and Nicaragua, is almost intermediate between *C. hieroglyphica* and *C. coronata*, as it has the elytral punctures placed in striæ towards the apex as in *C. coronata*. The antennæ are flavous, with the tip of the apical joint black. The prothorax has a large triangular basal black patch, enclosing three transverse flavous marks, which are sometimes partly obsolete; in one specimen (from Chontales) the anterior spot extends completely across. The scutellum is yellow. The elytra have the disc black, irregularly reticulated with yellow markings, which interrupt the rows of punctures.

The males are more rotundate than the females, and they have the apex of the elytra more obtuse. We figure a typical male example from Orizaba, and a female specimen of var. α from Costa Rica.

18. **Ctenochira cumulata.** (Tab. XIII. fig. 17, ♀.)

Coptocycla cumulata, Boh. Monogr. Cassid. iii. p. 508[1], and iv. p. 485[2]; Cat. Col. Ins. Brit. Mus. ix. p. 202[3].

Hab. Mexico, Tapachula in Chiapas (*Höge*); Guatemala, San Isidro, Zapote, Guatemala city (*Champion*); Nicaragua, Chontales (*Belt*, *Janson*); Costa Rica (*Van Patten*), Caché (*Rogers*).—Venezuela, Puerto Cabello and Valencia [1–3].

The numerous examples from the above-mentioned localities agree with Boheman's description of this species, except that the discoidal patch on the prothorax is black (instead of partly ferruginous), this patch enclosing nine flavous spot—four placed transversely at the base and five in a curved row in front. The antennæ are flavous, with the tip of the apical joint black (in the allied *C. retifera* and *C. reticulata* two of the outer joints are also black). The scutellum is yellow. The disc of the elytra is black, variegated with raised, transverse or oblique, flavous callosities, which are here and there confluent. We figure a specimen from Tapachula.

19. **Ctenochira flavonotata.** (Tab. XIII. fig. 18, ♂.)

Coptocycla flavonotata, Boh. Monogr. Cassid. iii. p. 457[1], and iv. p. 473[2]; Cat. Col. Ins. Brit. Mus. ix. p. 197[3].

Hab. Nicaragua, Chontales (*Belt*, *Janson*); Costa Rica (*Rogers*); Panama, Bugaba, David (*Champion*).—Colombia [1–3]; Guiana, Surinam [1–3].

Not uncommon in the low country of Chiriqui. The antennæ have their apical two or three joints infuscate or black; the prothorax has a large subtriangular basal black patch, enclosing five yellow spots; the scutellum is yellow; the elytra have the disc black, each marked with ten slightly raised yellow spots, the posterior three of which form an interrupted arcuate fascia. We figure an example from Chiriqui.

20. **Ctenochira fairmairei.** (Tab. XIII. fig. 19, var.)

Coptocycla fairmairei, Boh. Monogr. Cassid. iii. p. 453[1], and iv. p. 473[2]; Cat. Col. Ins. Brit. Mus. ix. p. 196[3].

Hab. Panama (*Boucard*).—Colombia [1–3]; Peru [1–3].

A single specimen from Panama differs from the description of this species in having the post-median transverse flavous fascia on the elytra extending across the disc to the margins. The disc of the elytra is black, with a flavous ring on the basal part, this being connected posteriorly with a curved fascia. The elytral markings resemble those of *Coptocycla annulus* (Fabr.), except that the annulus and fascia are connected.

21. **Ctenochira crux-flava.** (Tab. XIII. fig. 20, ♂.)

Subrotundate, very convex, shining, dilute flavous or flavo-testaceous, the margins subhyaline; the prothorax with the entire disc black; the elytra with the disc nearly to the apex black, marked with a common, broad, cruciform, flavous patch—extending from the base to a little beyond the middle, and laterally with a transverse ramus extending from it to the margins,—formed by smooth, raised, irregular reticulations; the antennæ, legs, and under surface entirely flavous or flavo-testaceous. Antennæ elongate, joints 3–6 slender, 7–11 slightly thickened, 3 a little shorter than 2, 4 nearly twice as long as 3, 4–6 equal in length, 7–10 more elongate, 11 nearly twice as long as 10, acuminate. Prothorax about twice as broad as long, broadly expanded and reticulate at the sides and in front, sinuate at the base on either side of the broad median lobe; the disc smooth, foveate and with a few scattered punctures at the sides behind, grooved on either side of the median lobe. Elytra very much wider than, and nearly three times as long as, the prothorax, deeply sinuate-emarginate at the base, and with prominent obtuse humeri; the disc very convex, feebly transversely gibbous below the base, hollowed at the sides behind the humeral callus, deeply excavate and foveate within the basal margin, and deeply foveate near the suture below the base, with rows of rather coarse deep punctures extending to the apex, the rows interrupted by the strongly raised reticulations forming the common cruciform patch; the margins very broadly expanded, becoming narrow at the apex, smooth and reticulate, separated from the disc by a row of deep foveæ. Anterior tarsal claws angularly dilated; the intermediate and hind tarsal claws pectinate.

Length 6½–7, breadth 5⅝–6¼ millim.

Hab. PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).

Numerous examples. Not closely allied to any species described by Boheman; it is perhaps best placed near *C. conscripta*.

22. **Ctenochira aspersa.** (Tab. XIII. fig. 21, ♂.)

Rotundate, convex, shining, flavous or flavo-testaceous, the margins hyaline; the prothorax with a short median line at the base, a short oblique line midway between this and the outer limit of the disc, and sometimes a small spot or curved mark between these, fuscous or dilute fuscous; the elytra with a short fine curved line on the humeral callus and the punctures fuscous; the antennæ flavous, sometimes with the ninth joint infuscate; the legs and under surface flavo-testaceous. Antennæ elongate, joints 3–6 slender, 7–11 slightly thickened, 3 a little shorter than 2, 4 nearly twice as long as 3, 4–6 equal in length, 7–10 more elongate, 11 nearly twice as long as 10, acuminate. Prothorax about twice as broad as long, broadly expanded and reticulate at the sides and in front, sinuate at the base on either side of the median lobe; the disc smooth, foveate and with a few scattered punctures at the sides behind, and grooved on either side of the median lobe. Elytra very much wider than, and in the female three times as long as, the prothorax, shorter in the male, somewhat deeply sinuate-emarginate at the base, with prominent rather sharp humeri; the disc convex, feebly transversely gibbous below the base, hollowed at the sides behind the humeral callus, deeply excavate and foveate within the basal margin, and foveate near the suture below the base and also in the middle, with rows of widely scattered, rather coarse, fuscous punctures, here and there interrupted by transverse ridges; the margins very broadly expanded, becoming narrow at the apex, smooth and reticulate, separated from the disc by a row of deep foveæ. Anterior tarsal claws angularly dilated; the intermediate and hind tarsal claws pectinate.

Length 4¾–5¼, breadth 4¼–4½ millim.

Hab. COSTA RICA (*Van Patten*); PANAMA, Bugaba (*Champion*).

Eleven examples, one only of which is from Costa Rica. This insect may be known from all the other Central-American species of the genus by its flavous colour; the punctures on the elytra and some small spots on the prothorax fuscous.

SUPPLEMENT.

HIMATIDIUM (p. 126).

5. **Himatidium sanguineum.** (Tab. XIII. figg. 22; 22 *a*, antenna.)

Ovate, slightly convex, shining, dilute sanguineous, the expanded margins of the prothorax, and of the elytra towards the apex, flavous; the antennæ testaceous, with the apical three joints, the tip of the eleventh excepted, black; the legs testaceous; the under surface rufo-testaceous. Head almost smooth. Antennæ nearly three times as long as the prothorax, rigid, filiform, joints 1 and 2 moderately long, equal, 3 nearly one half longer than 2 or 4, 4–10 gradually decreasing in length, 11 much longer than 10, acuminate. Prothorax twice as broad as long, deeply emarginate in front, strongly bisinuate behind; the sides converging almost from the base, moderately expanded, concave, smooth, and subhyaline, the exterior edge not thickened; the hind angles distinct, the anterior angles obtuse; the disc sparsely punctured at the sides and along the base, for the rest smooth. Scutellum triangular, smooth. Elytra broad oval, much wider than the prothorax, trisinuate at the base, almost separately rounded at the apex, and with rather obtuse humeri; the disc strongly transversely depressed behind the prominent humeral callus, with regular rows of deep, rather coarse punctures, which become finer at the apex, the interstices smooth and almost flat; the margins moderately expanded throughout, smooth and concave, subhyaline posteriorly.

Length 5, breadth 3½ millim.

Hab. Costa Rica, Volcan de Irazu (*Rogers*).

One specimen. This species is a close ally of the Colombian *H. fulvum*, Boh. (the type of which is before me); but differs from it in its more convex shape, the elytra more shining and more coarsely punctured, with the margins more broadly expanded at the apex, the prothorax less expanded at the sides and narrowing almost from the base. The antennæ are similarly formed in the two species, but they are very differently coloured, *H. fulvum* having the joints 1, 2, and 11 rufo-testaceous and 3–10 black.

Both species differ from the typical members of the genus in having the prothorax very much narrower than the elytra; they have much the facies of certain Hispidæ.

Fam. HISPIDÆ.

APPENDIX*.

Since the completion of the Supplement to this Family in May 1886 by the late J. S. Baly many specimens of Hispidæ have been received from Southern Mexico, and we take this opportunity, before closing the volume, to include here this additional material. The extensive collection made by Mr. H. H. Smith, principally in the States of Guerrero, Vera Cruz, and Tabasco, includes several new species, and adds much to our knowledge of the geographical distribution of many of these interesting insects. Mr. Gaumer has also sent us two novelties from Yucatan.

STENISPA (p. 4).

Stenispa sallæi (p. 4).

To the Mexican localities given, add:—R. Papagaio in Guerrero, Teapa in Tabasco (*H. H. Smith*).

Many specimens of both sexes were obtained by Mr. Smith at Teapa.

CEPHALOLEIA (pp. 8, 120).

Cephaloleia fulvolimbata (p. 24).

To the localities given, add:—Mexico, Teapa in Tabasco (*H. H. Smith*).

Numerous specimens of the typical form.

CEPHALODONTA (pp. 32, 120).

Cephalodonta erudita (p. 39).

To the localities given, add:—Mexico, Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*).

Two specimens of the var. A, hitherto only known from Nicaragua.

CHARISTENA (p. 45).

Charistena championi (p. 46).

To the localities given, add:—Mexico, Teapa in Tabasco (*H. H. Smith*).

* By G. C. Champion.

Charistena funesta (p. 46).

To the localities given, add:—Mexico, Cuernavaca in Morelos, Teapa in Tabasco (*H. H. Smith*).

Two specimens.

CHALEPUS (pp. 48, 120).

3 (A). Chalepus parallelus. (Tab. XIII. fig. 23.)

Elongate, narrow, parallel, subopaque; above rufo-fulvous, the eyes, the margins of the prothorax very narrowly, the scutellum, and the suture from about the basal third to the middle, black; the antennæ and legs black, the anterior femora and tibiæ partly fulvous; beneath black, the head and prothorax in great part, and the abdomen entirely, rufo-fulvous. Head opaque, sparsely finely punctate; the front moderately produced, sharply carinate anteriorly, the interocular space deeply triangularly depressed and almost smooth. Antennæ short, very little longer than the head and prothorax united, stout, slightly thickened towards the apex; the joints cylindrical, 3 very little longer than 2, 4–10 transverse, 11 longer than 10, abruptly acuminate at the tip. Prothorax transverse, very convex, slightly narrowed anteriorly, with prominent and acute front angles, the sides almost straight behind; the surface closely covered with very coarse, deep, foveolate punctures, separated by fine raised reticulations, distinctly canaliculate down the middle, and broadly transversely depressed before the base. Elytra very elongate, parallel; the lateral and apical margins finely serrulate; the apices separately rounded; each elytron with eight regular rows of very coarse deep punctures, the eighth obsolete for a short distance before the middle; the second, fourth, and sixth interspaces strongly costate throughout, the basal margin also strongly raised. Legs short and stout.

Length $2\frac{2}{3}$ lin.

Hab. Mexico, Atoyac in Vera Cruz (*H. H. Smith*).

One specimen. This species may be readily known by its elongate, parallel shape and very short antennæ, the elytra with only eight rows of very coarse punctures, their apices separately rounded and very finely serrulate, the second, fourth, and sixth interspaces strongly costate throughout. The penultimate joints of the antennæ are closely articulated and transverse. *C. parallelus* closely resembles *Uroplata limbata*, Baly, but in that insect the apical five joints of the antennæ are consolidated into a single piece.

3 (B). Chalepus atrocæruleus.

Moderately elongate, subparallel, slightly shining; bluish-black, the prothorax with an oblong fulvous spot on either side. Head opaque, the front moderately produced, carinate anteriorly, the interocular space irregularly punctured and longitudinally trisulcate, the lateral grooves deep. Antennæ nearly half the length of the body, stout, thickening outwardly; the joints cylindrical, 3 nearly twice as long as 2, 4, 5, and 7 as long as broad, 6 transverse, 8–11 almost consolidated into a single piece. Prothorax strongly transverse, transversely depressed behind, the sides gradually converging from the base, the anterior angles moderately prominent; the surface closely covered with very coarse, deep, foveolate punctures which are here and there coalescent. Elytra moderately long, subparallel, slightly wider at the apex than at the base; the apices rounded, feebly conjointly emarginate at the sutural angle; the lateral margin finely serrulate, the apical margin finely denticulate; each elytron with eight regular rows of deep punctures; the second and fourth interspaces, together with the suture, strongly costate, the sixth interspace also feebly costate. Legs moderately long.

Length $2\frac{1}{4}$ lin.

Hab. Mexico, Chilpancingo in Guerrero (*H. H. Smith*).

Two specimens. This species is allied to *C. suturalis*, Baly, from which it differs, apart from colour, in the strongly costate elytra, the apices of which are more distinctly emarginate at the sutural angle, and in the longer third joint of the antennæ. The apical four joints of the antennæ are almost fused into a single piece, and the species would therefore (like *C. suturalis*) be almost as well placed in *Uroplata*. An insect from Guatemala labelled doubtfully by Baly as *Uroplata subvirens*, Chap., is perhaps a still more nearly allied form.

Chalepus suturalis (pp. 51, 120).

To the localities given, add:—Mexico, Chilpancingo and Amula in Guerrero (*H. H. Smith*).

Three examples. In this insect the apical four joints of the antennæ are extremely closely articulated, a character not mentioned by Baly.

Chalepus placidus (p. 52).

To the localities given, add:—Mexico, Teapa in Tabasco (*H. H. Smith*).

Four examples.

Chalepus saundersi (p. 53).

To the localities given, add:—Mexico, Teapa in Tabasco (*H. H. Smith*).

Three examples. This insect is probably a pale variety of *C. terminatus*.

Chalepus terminatus (p. 54).

To the localities given, add:—Mexico, Teapa in Tabasco (*H. H. Smith*).

Numerous examples. As in *C. saundersi*, specimens occur with a short additional row of punctures (between the first and second) at the apex of the elytra.

Chalepus pallescens (p. 56).

To the localities given, add:—Mexico, Chilpancingo and R. Papagaio in Guerrero, Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*).

A single specimen from each locality. *C. jansoni*, Baly, from Chontales, is probably an immaculate variety of the same species, the type of which was obtained at Bugaba.

Chalepus distinctus (p. 56).

To the localities given, add:—Mexico, Jalapa (*Höge*), Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*).

Chalepus roseus (p. 58).

To the Mexican localities given, add:—Omilteme and Amula in Guerrero (*H. H. Smith*).

Chalepus fryi (p. 59).

To the localities given, add:—MEXICO, Omilteme and Chilpancingo in Guerrero, Atoyac in Vera Cruz (*H. H. Smith*).

This insect is probably a variety of *C. roseus*.

19 (A). **Chalepus flavipes.** (Tab. XIII. fig. 24.)

Moderately elongate, cuneiform, slightly shining; above and beneath rufo-fulvous, the elytra with an indeterminate transverse fascia before the apex dilute sanguineous, the lateral margin (except at the apex), and also the apical margin, flavous, the eyes and antennæ black; the legs flavous, the tarsi fuscous. Head opaque, with a few scattered punctures; the front moderately produced, the interocular space longitudinally sulcate in the middle. Antennæ short, not one third the length of the body, thickening outwardly; the joints cylindrical, 3 slightly longer than 2 or 4, 6–10 transverse, 11 longer than 10, acuminate. Prothorax transverse, convex; the sides converging from the base, the anterior angles rather obtuse; the surface closely covered with coarse, foveolate punctures, separated by fine raised reticulations. Elytra moderately long, gradually widening from the base to the rounded posterior angle; the apices conjointly, obtusely rounded; the lateral and apical margins finely serrulate; each elytron with eight, at the base and apex with nine, rows of punctures; the second, fourth, and sixth interspaces, together with the suture, costate, the second more broadly and strongly than the others. Legs rather short.

Length 2¼ lin.

Hab. MEXICO, Cuernavaca in Morelos (*H. H. Smith*).

One specimen. This insect closely resembles *C. instabilis*, Baly, var. C, but may easily be known from it by the short antennæ and pale legs. The penultimate joints of the antennæ are freely articulated and strongly transverse.

Chalepus marmoratus (p. 60).

To the localities given, add:—Cuernavaca in Morelos, Atoyac in Vera Cruz (*H. H. Smith*).

Chalepus digressus (p. 66).

To the Mexican locality given, add:—Teapa in Tabasco (*H. H. Smith*).

One specimen, differing from the type in having the apical black patch of the elytra more extended.

Chalepus bellulus (pp. 68, 121).

To the Mexican localities given, add:—Venta de Pelegrino, Tierra Colorada, Tepetlapa, Venta de Zopilote, and Dos Arroyos in Guerrero, Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*).

Chalepus rufithorax (p. 70).

To the Mexican locality given, add:—Tierra Colorada in Guerrero (*H. H. Smith*).

One specimen, agreeing perfectly with the type.

Chalepus chromaticus (pp. 70, 121).

To the Mexican localities given, add:—Atoyac in Vera Cruz (*H. H. Smith*).

Chalepus propinquus (p. 71).

To the localities given, add:—MEXICO, Teapa in Tabasco (*H. H. Smith*).

Three specimens.

Chalepus angulosus (pp. 73, 121).

To the localities given, add:—MEXICO, Teapa in Tabasco (*H. H. Smith*); GUATEMALA, Panzos (*Champion*).

Chalepus subhumeralis (p. 74).

To the localities given, add:—MEXICO, Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*).

45 (A). **Chalepus maculicollis.**

Elongate, rather narrow, subparallel, slightly shining; black, the prothorax with an oblong fulvous vitta on either side; the legs and antennæ black. Head subopaque, almost smooth; the front moderately produced, the interocular space longitudinally grooved in the middle behind, feebly carinate anteriorly, and with a short shallow groove on either side. Antennæ short, not one third the length of the body, thickening outwardly; the joints cylindrical, 3 a little longer than 2 and much shorter than 4, 4 and 5 about as broad as long, 6–10 transverse, 11 much longer than 10, acuminate. Prothorax strongly transverse, convex, narrowed anteriorly, with rather prominent dentiform anterior angles, the sides bisinuate; the surface (a smooth space down the middle excepted, this being finely canaliculate in the centre) closely covered with coarse, oblong, foveolate punctures, and broadly transversely depressed before the base. Elytra moderately elongate, subparallel, slightly widening from the base to the rounded posterior angle; the lateral and apical margins finely serrulate; the apices separately rounded; each elytron with ten regular rows of deep, closely-packed punctures; the second, fourth, and eighth interspaces, together with the suture, costate, the second more strongly than the others. Legs short and stout.

Length $2\frac{1}{2}$ lin.

Hab. MEXICO, Xucumanatlan in Guerrero (*H. H. Smith*).

One specimen. Not very closely allied to any of the species described by Baly, but perhaps best placed near *C. subhumeralis*. The penultimate joints of the antennæ are closely, but freely, articulated, and strongly transverse.

50 (A). **Chalepus yucatanus.** (Tab. XIII. fig. 25.)

Moderately elongate, subparallel, subopaque; black, the prothorax fulvous, with a rather broad black or fuscous median vitta, the elytra with a very broad fulvous lateral patch extending from the base to beyond the middle and obliquely truncate behind; the legs and antennæ black. Head subopaque, almost smooth, the front moderately produced, feebly carinate anteriorly, the interocular space longitudinally trisulcate. Antennæ very short, not one third the length of the body, thickening a little outwardly; the joints cylindrical, 3 much longer than 2 or 4, 4–10 transverse, 11 longer than 10, acuminate. Prothorax opaque, strongly transverse, a little flattened on the disc, transversely depressed behind, the sides feebly bisinuate and converging from the base, the anterior angles feebly dentiform; the surface closely covered with deep foveolate punctures. Elytra rather broad, moderately long, subparallel, slightly widening from the base

to the rounded posterior angle; the apices almost conjointly rounded; the lateral margin finely serrulate, the apical margin denticulate; each elytron with ten rows of punctures; the second, fourth, and eighth interspaces throughout, and the sixth at the base, costate, the second and fourth more broadly and strongly than the others. Legs rather short.

Length 3 lin.

Hab. MEXICO, Temax in North Yucatan (*Gaumer*).

Two specimens. This species is nearest allied to *C. hepburni*, Baly, but it has much more strongly costate elytra, the sixth interspace also being costate towards the base; and the prothorax is more opaque and has obtuse anterior angles. The coloration resembles that of *C. contubernalis* and *C. chapuisi*, Baly; but both these species are more elongate, and have a short additional row of punctures at the base of the elytra, and longer antennæ. The penultimate joints of the antennæ are closely, but freely, articulated and transverse.

Chalepus acuticornis (p. 79).

To the Mexican localities given, add:—Dos Arroyos, Rincon, and Acapulco in Guerrero, Atoyac in Vera Cruz (*H. H. Smith*), Temax in North Yucatan (*Gaumer*).

Sent in abundance from Teapa.

Chalepus chapuisi (p. 81).

To the Mexican locality given, add:—Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*), Temax in North Yucatan (*Gaumer*).

Chalepus waterhousii (pp. 81, 121).

This insect has been found in abundance by Mr. Smith at Teapa, the specimens showing no variation in colour. In the males the anterior and posterior tibiæ are each armed with a sharp triangular tooth on the inner side near the apex. The legs are long and slender in both sexes.

Chalepus mediolineatus (p. 122).

To the Mexican localities given, add:—Amula and Chilpancingo in Guerrero (*H. H. Smith*).

Eight specimens. This insect is closely allied to, and perhaps not really distinct from, *C. contubernalis*, Baly.

Chalepus omogerus (p. 83).

To the Mexican localities given, add:—Xucumanatlan, Chilpancingo, Amula, and Tepetlapa in Guerrero, Cuernavaca in Morelos, Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*).

Var. The upper surface entirely black.

Hab. Mexico, Omilteme and Cuernavaca (*H. H. Smith*). Two specimens.

Sent in plenty by Mr. Smith. It is probable that two species were confused under this name by Baly, the numerous specimens from Western Mexico differing from those from Vera Cruz and Tabasco in having the apex of the elytra more finely denticulate and the row of punctures at the base better defined. The colour is very variable.

OCTOTOMA (p. 87).

Octotoma scabripennis (p. 87).

To the Mexican localities given, add:—Chilpancingo and Tepetlapa in Guerrero, Cuernavaca in Morelos, Atoyac in Vera Cruz (*H. H. Smith*).

Many specimens, including both sexes.

Octotoma marginicollis (p. 88).

To the Mexican localities given, add:—Cuernavaca in Morelos (*H. H. Smith*).

BRACHYCORYNA (p. 89).

Brachycoryna pumila (p. 90).

To the localities given, add:—Venta de Zopilote in Guerrero, Vera Cruz, Teapa (*H. H. Smith*).

MICRORHOPALA (p. 91).

Microrhopala pulchella (p. 91).

To the Mexican localities given, add:—Tepetlapa and Chilpancingo in Guerrero, Teapa in Tabasco (*H. H. Smith*), Temax in North Yucatan (*Gaumer*).

Microrhopala sallæi (p. 91).

To the Mexican localities given, add:—Temax in North Yucatan (*Gaumer*).

5. **Microrhopala unicolor.**

Moderately elongate, subparallel, black with an æneous lustre, shining. Head trisulcate between the eyes, the vertex with a few scattered punctures. Antennæ short, scarcely longer than the head and prothorax united, exceedingly stout; the joints cylindrical, 2 and 3 subequal in length, 4–7 strongly transverse, 7 one half wider and very much stouter than 6, 8–11 amalgamated into a single piece, and together forming an exceedingly stout oval club, which is blunt at the tip. Prothorax very convex, moderately transverse, transversely depressed behind, the sides converging from the base, the anterior angles obtuse; the surface impressed with scattered, very coarse, deep, rounded punctures. Elytra moderately long, subparallel for two thirds of their length, conjointly rounded at the apex; the lateral margin serrulate, the apical margin finely denticulate; each elytron with eight rows of very coarse, deep, foveolate punctures, which are partly coalescent and form irregular double series separated by raised reticulations;

the second, fourth, and sixth interspaces, together with the suture, slightly raised, becoming costate towards the apex.

Length $1\frac{1}{2}$ lin.

Hab. Mexico, Temax in North Yucatan (*Gaumer*).

One specimen. The uniform brassy-black colour, short antennæ, and peculiar elytral sculpture distinguish this species at a glance. The punctures on the elytra form four double series separated by raised reticulations.

UROPLATA (pp. 92, 123).

Uroplata sanguinipennis (p. 123).

Var. The elytra a little shorter, black, with an oblique spot on the shoulders fulvous; the head and prothorax with a brassy lustre.

Hab. Mexico, Atoyac in Vera Cruz (*H. H. Smith*).

Two specimens, differing as above from the Panama type. *U. sanguinipennis* differs from all the allied forms in having the first to the sixth elytral interspaces narrowly costate.

4 (A). **Uroplata sulcifrons.** (Tab. XIII. fig. 26.)

Moderately elongate, subparallel, slightly shining, black, the head and prothorax with a slight brassy lustre; the prothorax with a fulvous vitta on either side; the elytra each with a large fulvous patch extending from the base to beyond the middle and obliquely truncate behind, the suture piceous or black throughout; the antennæ and legs black. Head slightly shining, with some scattered rather coarse punctures behind, the front moderately produced; the interocular space with five deep longitudinal grooves. Antennæ nearly half the length of the body, stout, thickening outwardly; the joints cylindrical, 3 much longer than 2, 4 as long as broad, 5–7 transverse, 8–11 consolidated into a single piece. Prothorax transverse, moderately convex, transversely depressed behind, narrowing from the base, with obtuse anterior angles; the surface with very coarse deep scattered punctures, the space on either side occupied by the fulvous vitta impunctate. Elytra subparallel, a little wider behind than in front, moderately long; the sides serrulate to the rounded posterior angle, the apices rather coarsely, unequally serrate, and conjointly rounded; each elytron with eight regular rows of deep punctures throughout; the second interspace broadly and strongly, the fourth moderately, and the sixth finely, costate; the suture also raised. Legs moderately long.

Length $2\frac{1}{2}$ lin.

Hab. Mexico, Temax in North Yucatan (*Gaumer*).

Three examples. Allied to *U. vittatipennis*, Baly, from Honduras, Nicaragua, &c., but less elongate, and with the fourth elytral interspace not so strongly costate, the fulvous patch obliquely truncate behind. In *U. vittatipennis* the third and fourth rows of punctures are fused into one in the median third of the elytra (not mentioned in the description); in *U. sulcifrons* they are separate throughout.

Uroplata coxalgica (p. 123).

To the Mexican locality given, add:—Teapa in Tabasco (*H. H. Smith*).

One specimen, agreeing perfectly with the type.

18 (B). **Uroplata annulipes.** (Tab. XIII. fig. 27.)

Moderately elongate, subparallel, rather shining, fulvous; the elytra flavous towards the suture, with an oblique narrow piceous stripe on the middle of the disc extending to about one fourth from the base and becoming evanescent behind, the apex indeterminately fusco-sanguineous; the antennæ piceous; the eyes and coxæ black; the femora flavous, with their outer half (the lower side of the front pair excepted) piceous; the tibiæ fulvous, with their apex pitchy-brown; the tarsi pitchy-brown; the body beneath flavous. Head shining, with a few fine scattered punctures, the front moderately produced; the interocular space plane, feebly longitudinally grooved in the middle behind and sharply carinate anteriorly. Antennæ short, a little longer than the head and prothorax united, stout, thickened outwardly; the joints cylindrical, 3 much longer than 2 or 4, 4 nearly as long as broad, 5 and 6 transverse, 7 twice as long as and very much broader than 6, as broad as long, 8–11 consolidated into a single very stout oval club. Prothorax transverse, convex, gradually narrowing from the base, deeply transversely depressed behind, with rather obtuse anterior angles; the surface shining, somewhat closely covered with coarse, deep, round punctures. Elytra moderately long, subparallel, finely and equally serrulate at the sides and apex; the apices rounded, very feebly sinuate near the sutural angle; each elytron with eight regular rows of coarse deep punctures, those of the first and second and third and fourth rows exceedingly coarse towards the base and confluent in pairs; the second, fourth, and sixth interspaces, together with the suture, costate, the second (except at the base) more strongly than the others, the basal margin also sharply raised. Legs stout.

Length $2\frac{1}{2}$ lin.

Hab. MEXICO, Atoyac in Vera Cruz (*H. H. Smith*).

One specimen. This insect is nearest allied to *U. coxalgica*, Baly; but it is much less elongate, with the prothorax more sparsely punctured, the elytra with their apices finely serrulate, the punctures much coarser towards the base and transversely confluent in pairs; the colour is also very different.

Uroplata westwoodi (p. 112).

To the Mexican localities given, add:—Dos Arroyos in Guerrero, Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*), Temax in North Yucatan (*Gaumer*).

Uroplata fulvopustulata (p. 113).

To the localities given, add:—MEXICO, Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*).

Three examples. Like the following, an addition to the Mexican fauna.

Uroplata lineaticollis (p. 113).

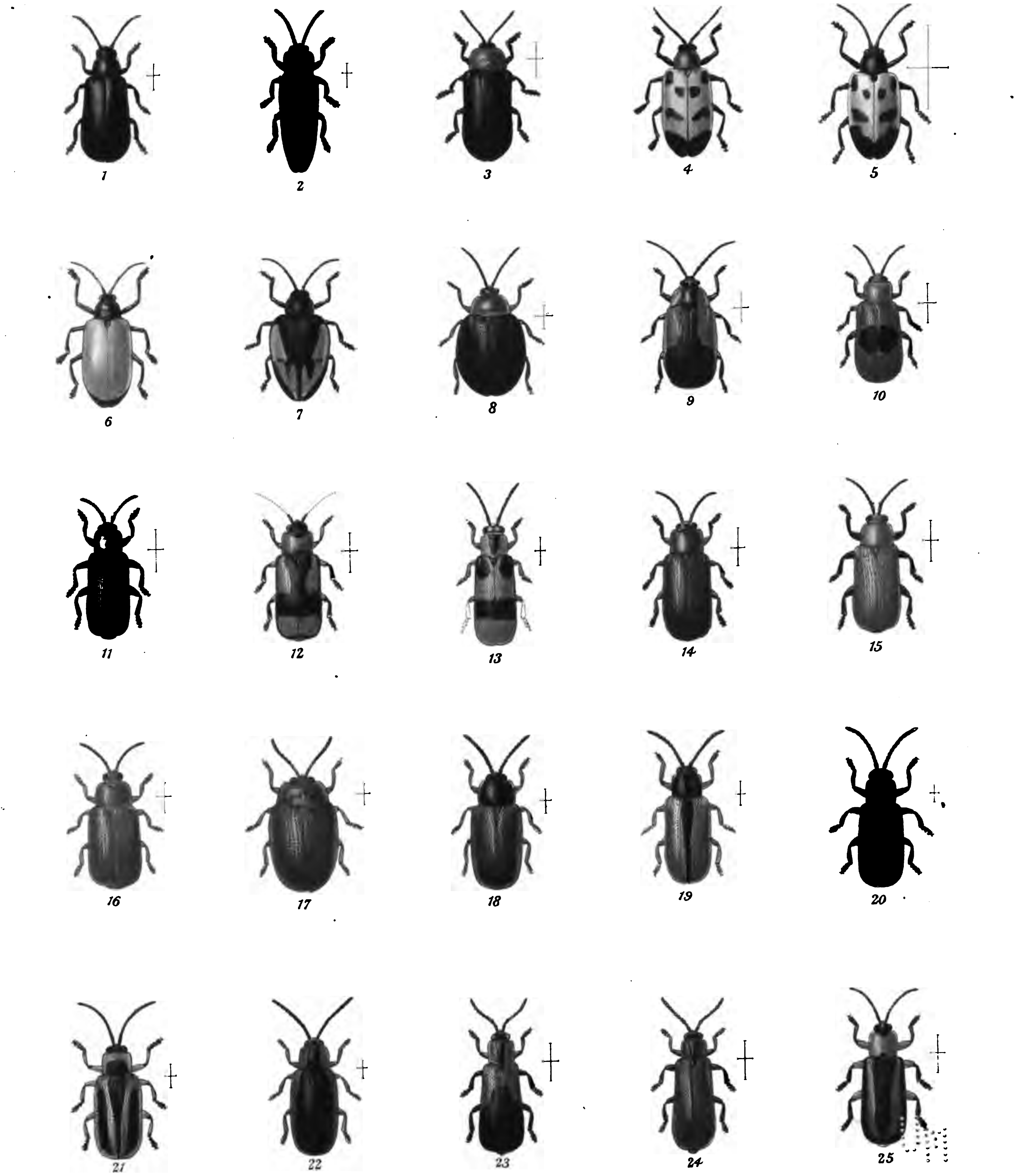
To the localities given, add:—MEXICO, Atoyac in Vera Cruz, Teapa in Tabasco (*H. H. Smith*).

Seven examples. This species was incorrectly placed in *Uroplata* by Baly, the apical four joints of the antennæ not being amalgamated into a single piece. It belongs to *Chalepus*, as defined by him, and should be placed near *C. productus*.

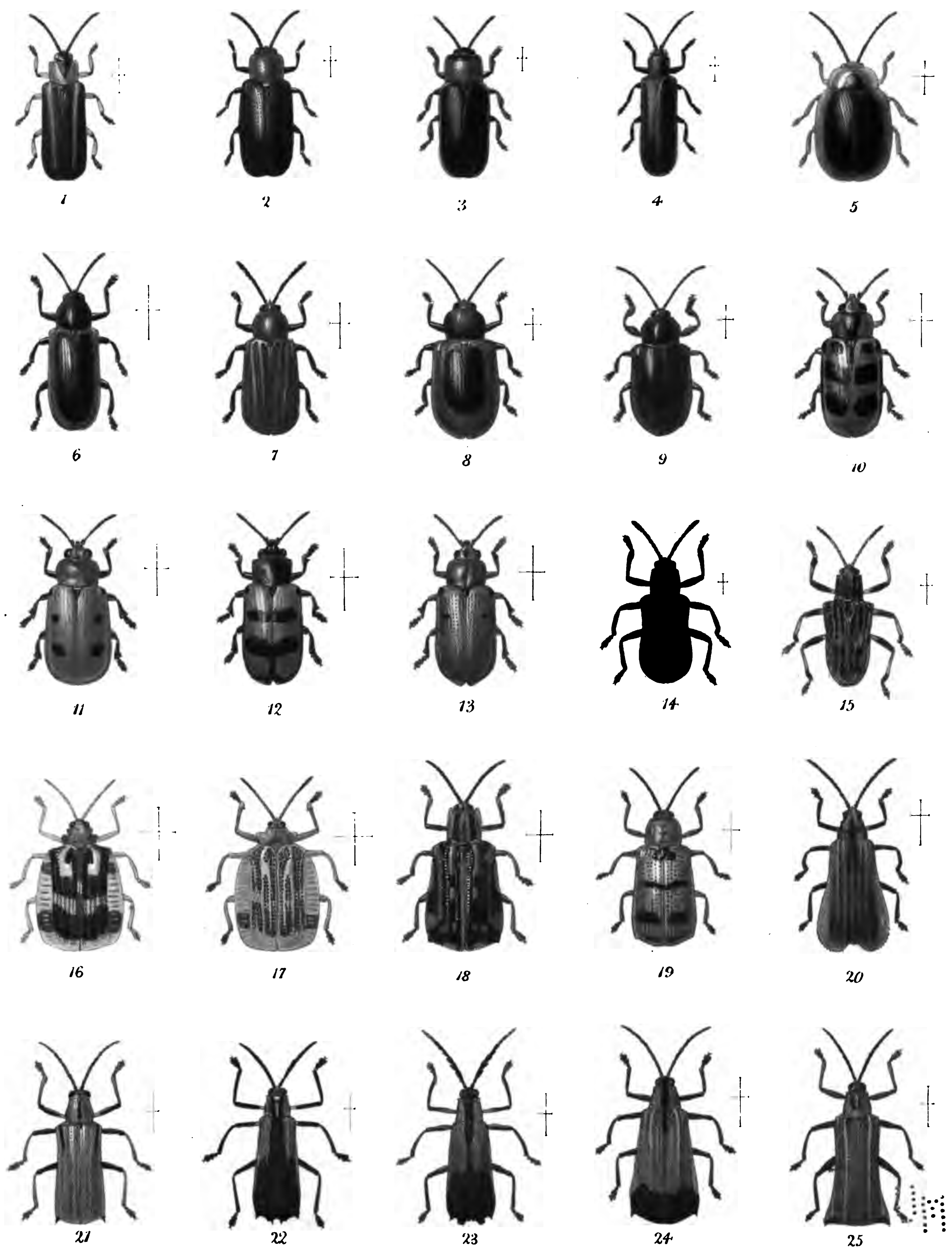
INDEX.

[Names in small capitals refer to Families &c.; those in roman type to the chief reference to each species included in the work; those in italics to species incidentally mentioned, synonyms, &c.]

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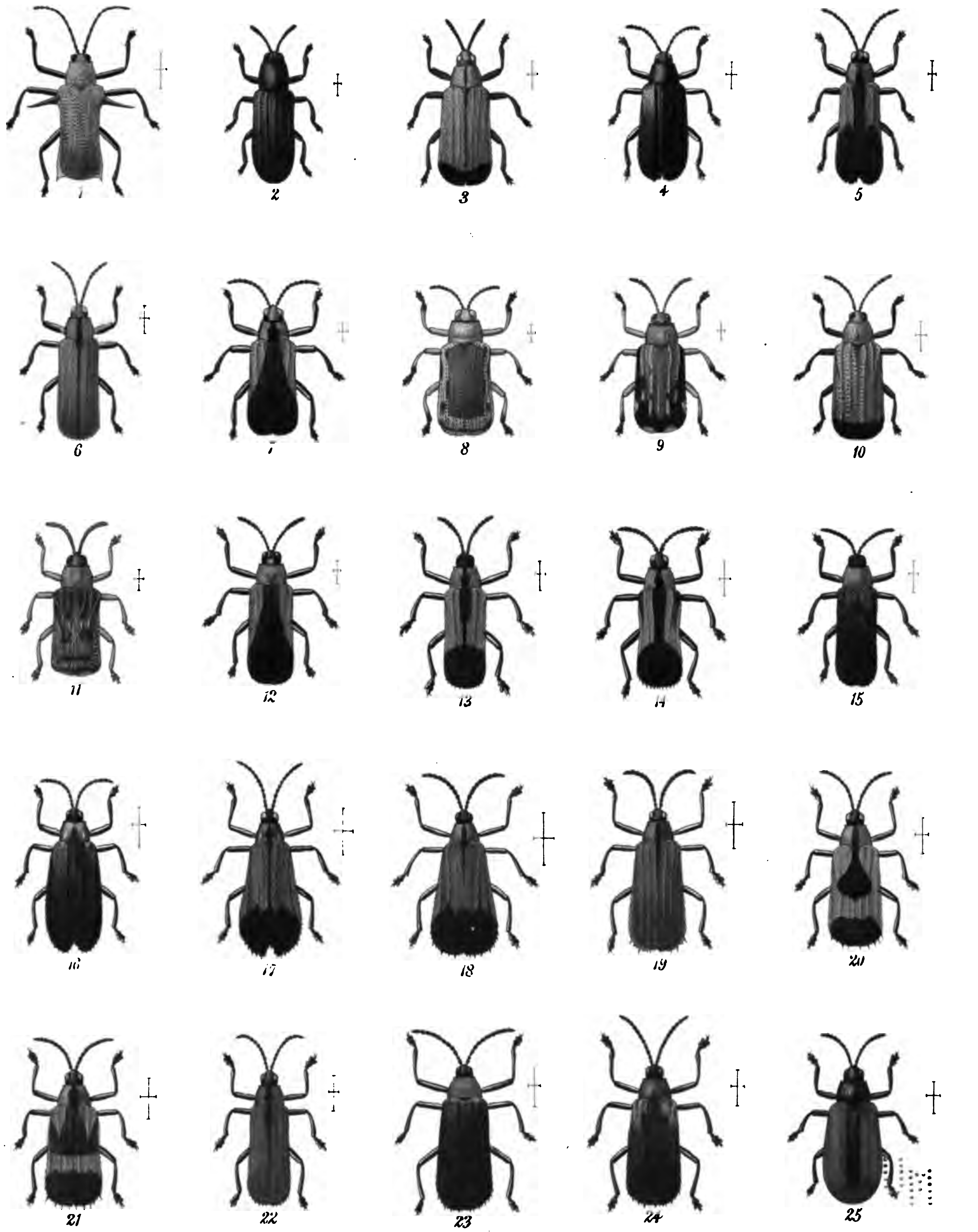
1 EUXEMA INSIGNIS.
2 STENISPA SALLÆI.
3 AMPHIPALPA GUERINI.
4 ALURNUS ORNATUS.
5 „ SALVINI.
6 „ „ *var.*
7 „ CASSIDEUS.
8 XANTHISPA CÆRULEIPENNIS.
9 HOMALISPA VARIABILIS.
10 CEPHALOLEIA GRATIOSA.
11 „ CHAMPIONI.
12 „ ORNATA.
13 „ NIGRIPICTA.
14 „ ERICHSONI.
15 „ DISTINCTA
16 „ SALLÆI.
17 „ LATA.
18 CEPHALOLEIA PRETIOSA.
19 „ SUTURALIS.
20 „ STEVENSI.
21 „ HISTRIONICA.
22 „ ELEGANTULA.
23 „ INSTABILIS.
24 „ „ *var.*
25 „ CONSANGUINEA



1 CEPHALOLEIA VICINA.
2 „ RUFICOLLIS
3 „ FULVOLIMBATA.
4 STENOSOMA.
5 DEMOTISPA LIMBATELLA
6 PROSOPODONTA LIMBATA.
7 „ COSTATA.
8 CHEIRISPA DORSATA.
9 CHEIRISPA DISTINCTA.
10,11 ARESCUS BICOLOR.
12,13 „ PERPLEXUS.
14 CEPHALODONTA GENEROSA.
15 „ CALLOSA.
16 „ GODMANI.
17 „ „ Var
18 CEPHALODONTA MACULATA.
19 „ QUINQUE-MACULATA
20 „ CHAMPIONI.
21 „ GRACILENTA.
22 „ ERUDITA.
23 „ PROXIMA.
24 „ JAVETI.
25 „ ANTENNATA.

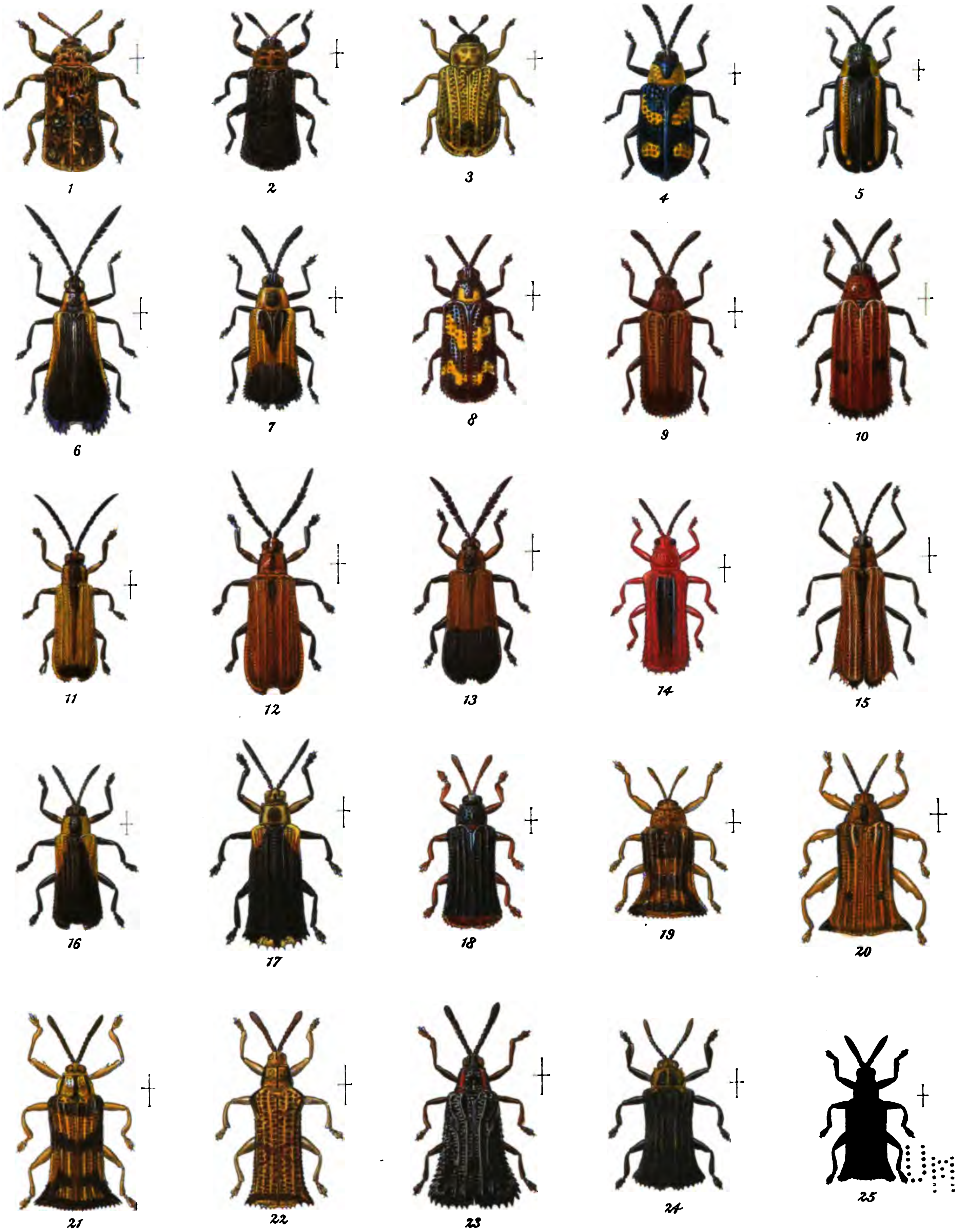
W Purkiss lith. Hanhart imp.

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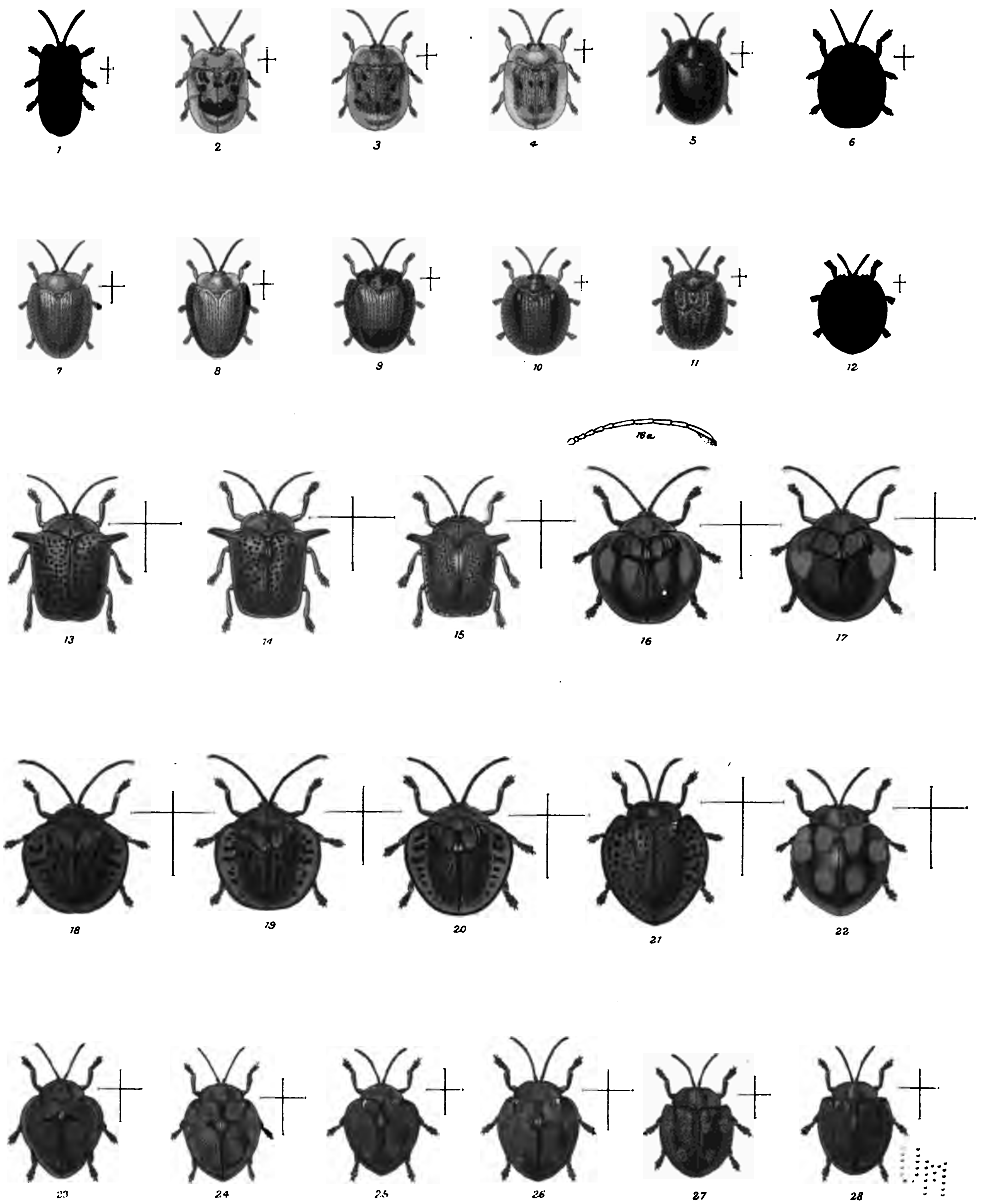
1 CEPHALODONTA FEROX.
2 CHARISTENA PERSPICUA.
3 PARACHALEPUS BREVICORNIS.
4 CHALEPUS MORIO.
5 „ CONGENER.
6 „ PLACIDUS.
7 „ AMICUS.
8 „ VIRIDANUS.
9 CHALEPUS DISTINCTUS.
10 „ FRATERNUS.
11 „ MARMORATUS.
12 „ CONTIGUUS.
13 „ CONSANGUINEUS.
14 „ NIGRIPECTUS.
15 „ BELLULUS.
16 „ OMOGERUS.
17 „ AMPLIPENNIS.
18 CHALEPUS POSTICATUS.
19 „ SUSPICIOSUS.
20 „ ACUTICORNIS.
21 „ ALIENUS.
22 „ CHROMATICUS.
23 „ HÆMATODERUS.
24 „ WATERHOUSEI.
25 „ NOTATICOLLIS.

W. Purkiss lith. Hanhart imp.



1 OCTOTOMA MARGINICOLLIS.
2 „ SCABRIPENNIS.
3 PHYSOCORYNA SCABRA.
4 MICRORHOPALA PERFORATA.
5 „ RUBROLINEATA
6 UROPLATA EXPLANATA.
7 „ RODRIGUEZI.
8 „ SALLÆI.
9 VROPLATA VITTATIPENNIS
10 „ RUBIDA.
11 „ EMARGINATA.
12 „ EMORSITANS.
13 „ DIMIDIATA.
14 „ ELEGANTULA.
15 „ ARMATA.
16 „ EXCISA.
17 „ WESTWOODI.
18 UROPLATA HÆMATOPYGA.
19 „ FULVOPUSTULATA.
20 „ ROBINSONI.
21 „ VARIEGATA.
22 „ ELEVATA.
23 „ ATERRIMA.
24 „ MELANCHOLICA.
25 ACANTHODES FLAVIPES.

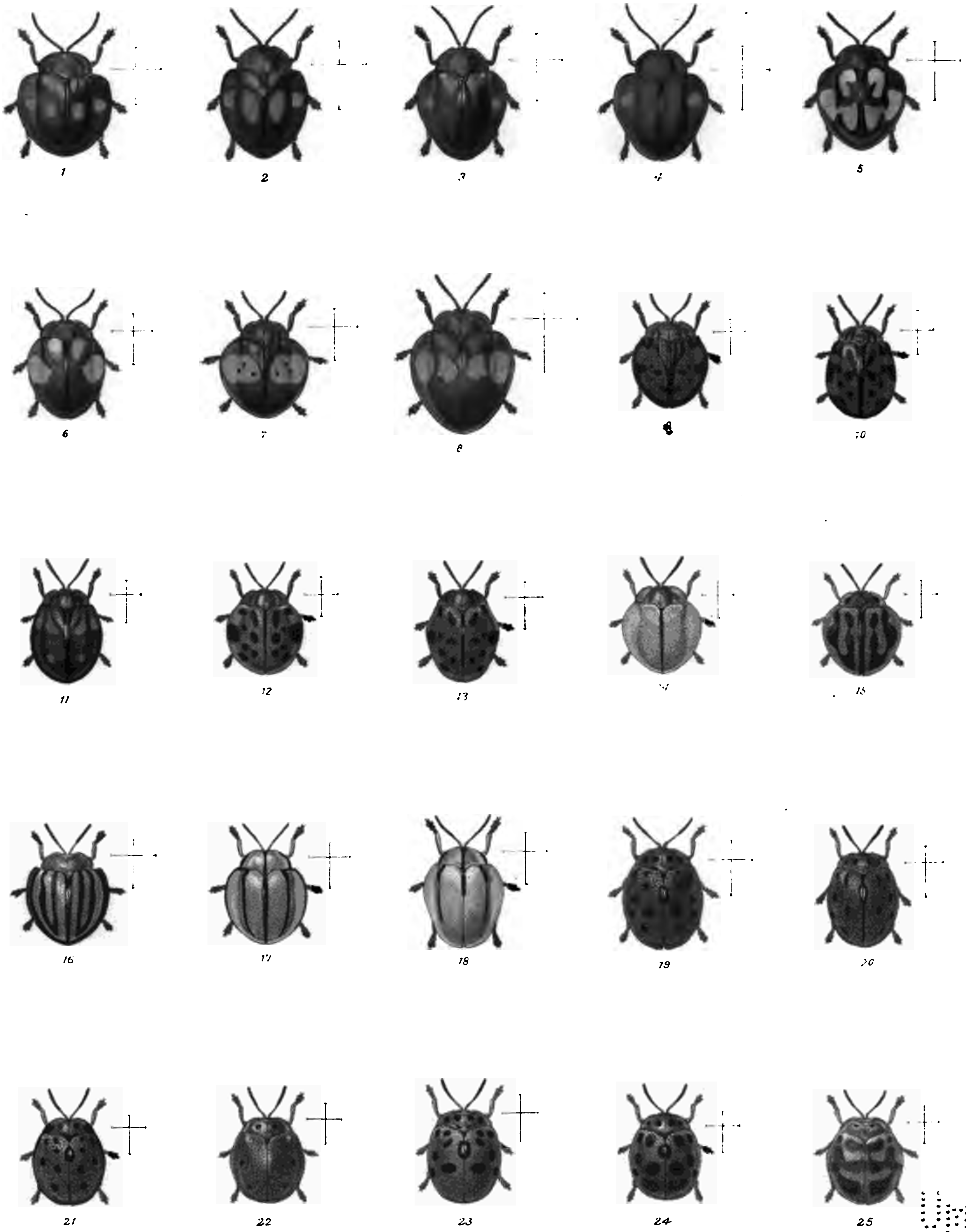
W. Purkiss lith. Hanhart imp.



1 DELOCRANIA PANAMENSIS.
2,3,4 HIMATIDIUM IMPURUM, *vars.*
5 " RUFOMARGINATUM.
6 " RUFIVENTRE.
7 CALYPTOCEPHALA BREVICORNIS.
8 " MARGINIPENNIS.
9 " DISCOIDEA.
10 PORPHYRASPIS CIRCUMDATA.
11 PORPHYRASPIS FLEXUOSA.
12 " MARGINATA.
13,14 TAUROMA CASTA.
15 " AZUREICORNIS.
16,16a ♂ DOLICHOTOMA BISBIPLAGIATA.
17 ♂ " DISTINCTA.
18 ♂ " CONSPERSIPENNIS.
19 ♂ " SALVINI.
20 ♀ DOLICHOTOMA SALVINI, *var.*
21 CALASPIDEA COLUMBINA.
22 ♂ MESOMPHALIA ILLUSTRIS.
23 ♂, 24 ♀ " PUNICEA.
25 ♂ " " , *v.* CHEVROLATI.
26 ♀ " " , *v.* ELEGANS.
27 ♂ " TRISTIGMA.
28 ♀ " " , *var.*

W. Purkiss lith. Hanhart imp.

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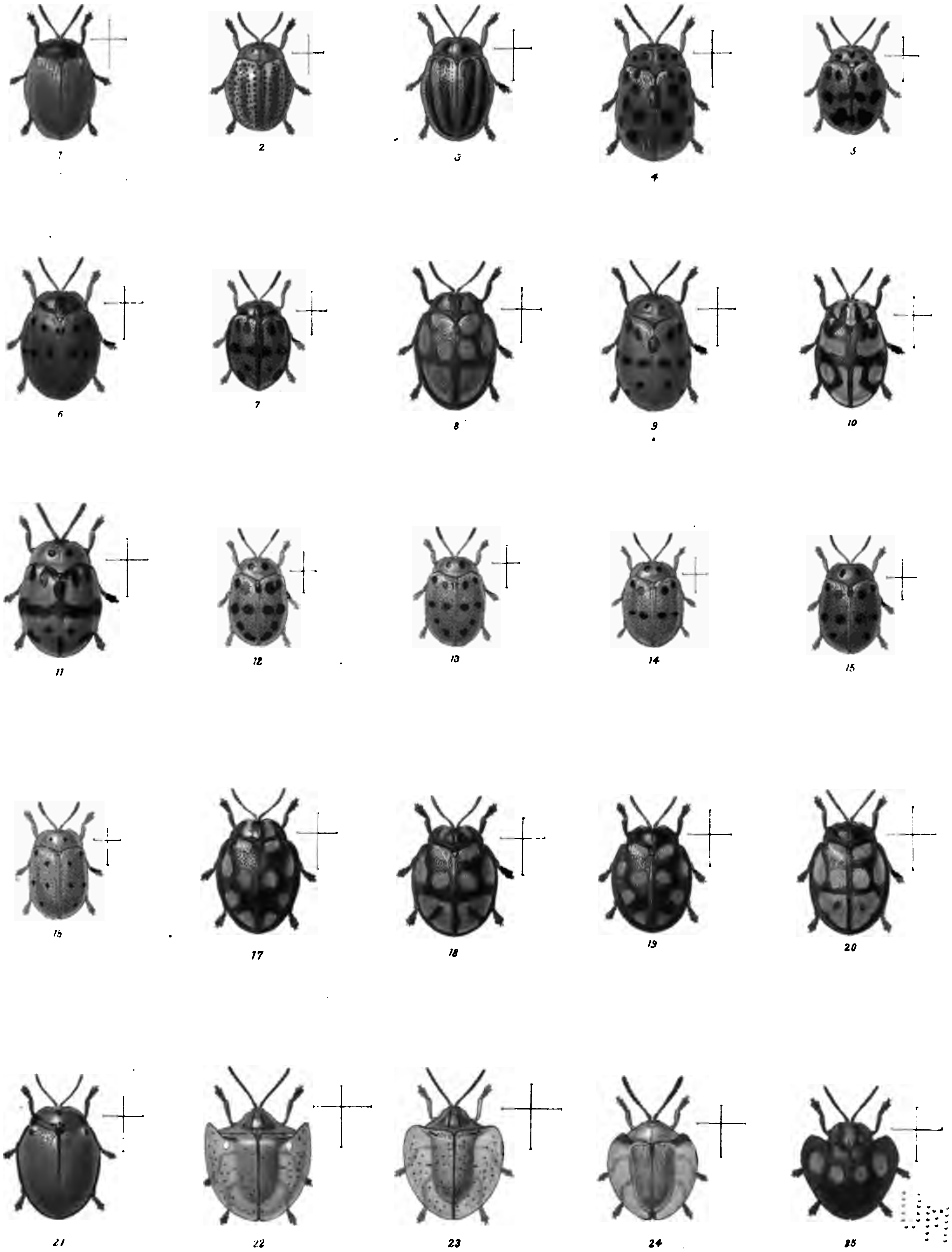


1♂ MESOMPHALIA LEBASI.
2♀ " " , v. PRIMARIA.
3♀ " " , var.
4 " COSTARICENSIS.
5♂ " XANTHOSPILA.
6♀ " 4-GUTTATA.
7♂ " SALVINI.
8♀ " " , var.

9♂ MESOMPHALIA PICTILIS.
10,11♀ " " , vars.
12♂,13♀ " ISTHMICA.
14♂ " " , var.
15♂ " ÆNEOVITTATA.
16♂ " 4-VITTATA.
17♂ " NIGROLINEATA.

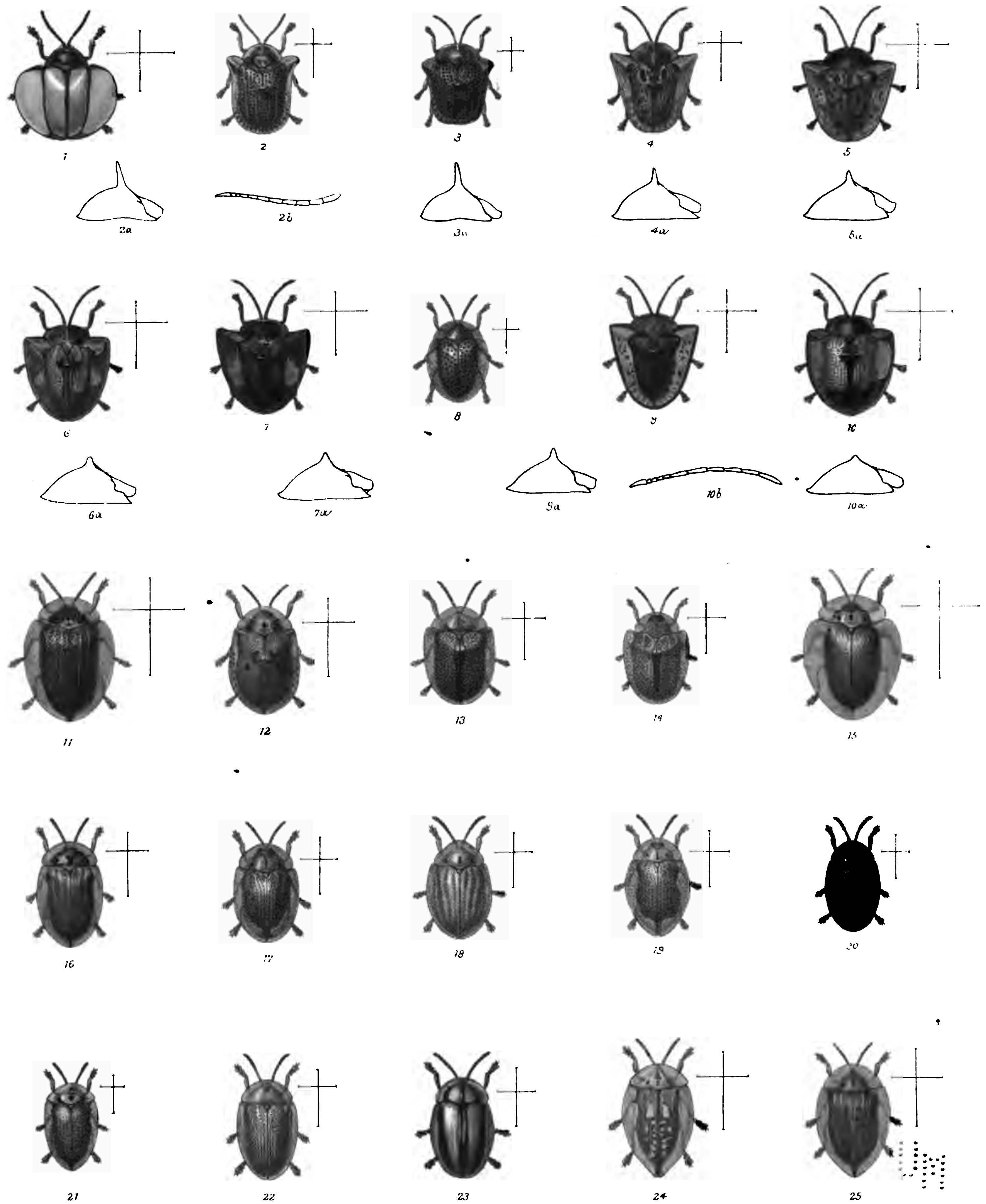
18♀ MESOMPHALIA INTERRUPTA.
19♀ CHELYMORPHA HÖPFNERI.
20♀ " PUBESCENS.
21♂ " GRESSORIA.
22♂ " SERICEA.
23♀ " COMATA, var.
24♂ " " (17-NOTATA).
25♂ " v. SMITHI.

W. Purkiss lith. Hanhart imp. 630.



1 ♀ CHELYMORPHA RUFIPENNIS.
2 ♂ " ALTERNANS.
3 ♀ " VITTATA.
4 ♀ " RUGICOLLIS.
5 ♂ " CATENULATA.
6 ♀ " " , v. 11-MACULATA.
7 ♀ " " , var.
8 ♀ " JUVENCA.
9 ♀ CHELYMORPHA MEXICANA.
10 ♂ " BIANNULARIS.
11 ♂ " " , v. FASCIATA.
12 ♀ " 14-PUNCTATA.
13 ♀ " " , v. 16-STILLATA.
14 ♂ " " v. CONJUGATA.
15 ♀ " 13-MACULATA.
16 ♀ " 12-SIGNATA.
17 CHELYMORPHA GUTTIFERA
18 " FLAVOMACULATA.
19 " 10-STILLATA
20 ♀ " EPILACHNOIDES.
21 ♀ " OBLITERATA.
22 ♂, 23 ♀ SELENIS SPARSA.
24 ♂ OMOPLATA TERSA.
25 ♂ " 4-STILLATA.

W Purkiss lith. Hanhart imp.
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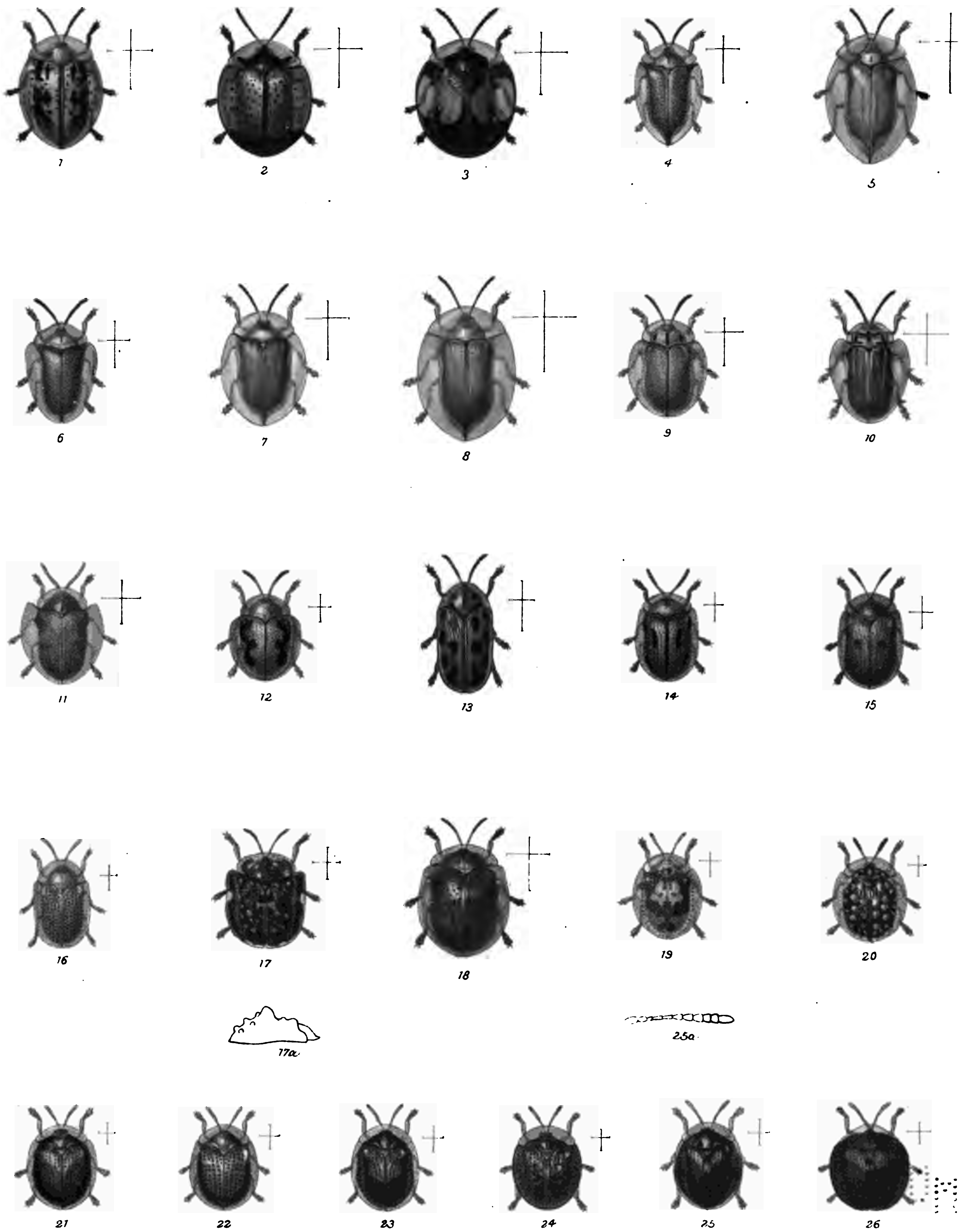


1 OMASPIDES BISTRIATA.
2,2*a*,*b* BATONOTA AURITA.
3,3*a* » YUCATANA.
4,4*a* » NODOSA.
5,5*a* » INSIDIOSA.
6,6*a* » SEXPLAGIATA.
7,7*a* » RUFO-ORNATA.
8♂ CISTUDINELLA FOVEOLATA.

9,9*a* BATONOTA GODMANI.
10,10*a*,*b* BIPLAGIATA.
11 PHYSONOTA GIGANTEA.
12♀ » ALUTACEA, *v.* CYRTODES
13 » NITIDICOLLIS.
14 » CEREA.
15 » PERAMPLA.
16 » STIGMATILIS.
17♀ » PICTICOLLIS.

18 PHYSONOTA OVALIS *var.*
19 » VITTICOLLIS, *var.*
20 » TURGIDA.
21 » MEXICANA.
22 » FLAVAGO.
23 » DISJUNCTA.
24♀ » CAUDATA.
25♀ » ATTENUATA.

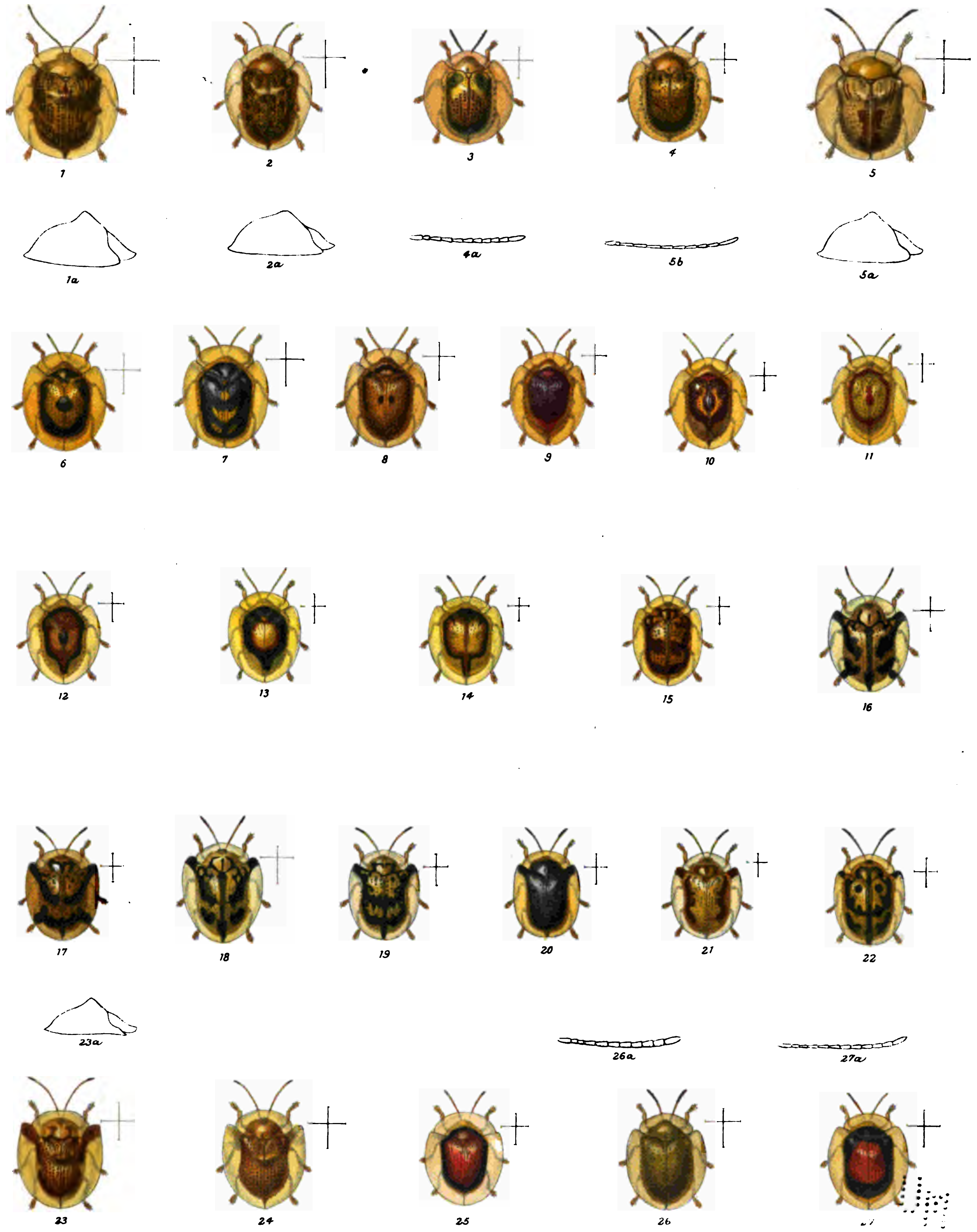
W. Purkiss lith. Hanhart imp.
633.



1 COPTOCYCLA WAGNERI.
2♂ " NIGROPUNCTATA.
3♂ " TRIPARTITA.
4 PHYSONOTA HUMILIS.
5 " LIMONIATA.
6♂ " OVIPENNIS.
7♂ " TRANSLUCIDA.
8 " EUCALYPTA.
9♂ " MACULIVENTRIS.
10♂ PHYSONOTA CALCARATA.
11♂ EURYPEPLA BREVILINEATA.
12♂ CHERSINELLA HETEROPUNCTATA, var.
13 ISCHYROSONYX NIGROSIGNATA.
14 CASSIDA MEXICANA.
15♀ COPTOCYCLA AZTECA.
16 CASSIDA PALLIDULA.
17, 17a " RUGOSA.
18♀ HYBOSA MELLICULA.
19 CHARIDOTIS PUSTULATA.
20 " AUROGUTTATA.
21 " FLAVOMARGINATA.
22 " YUCATANENSIS.
23 " ERYTHROSTIGMA.
24 " FRONTALIS.
25, 25a " SEMINULUM.
26 " CURTULA.

W. Purkiss lith. Hanhart imp.

636.

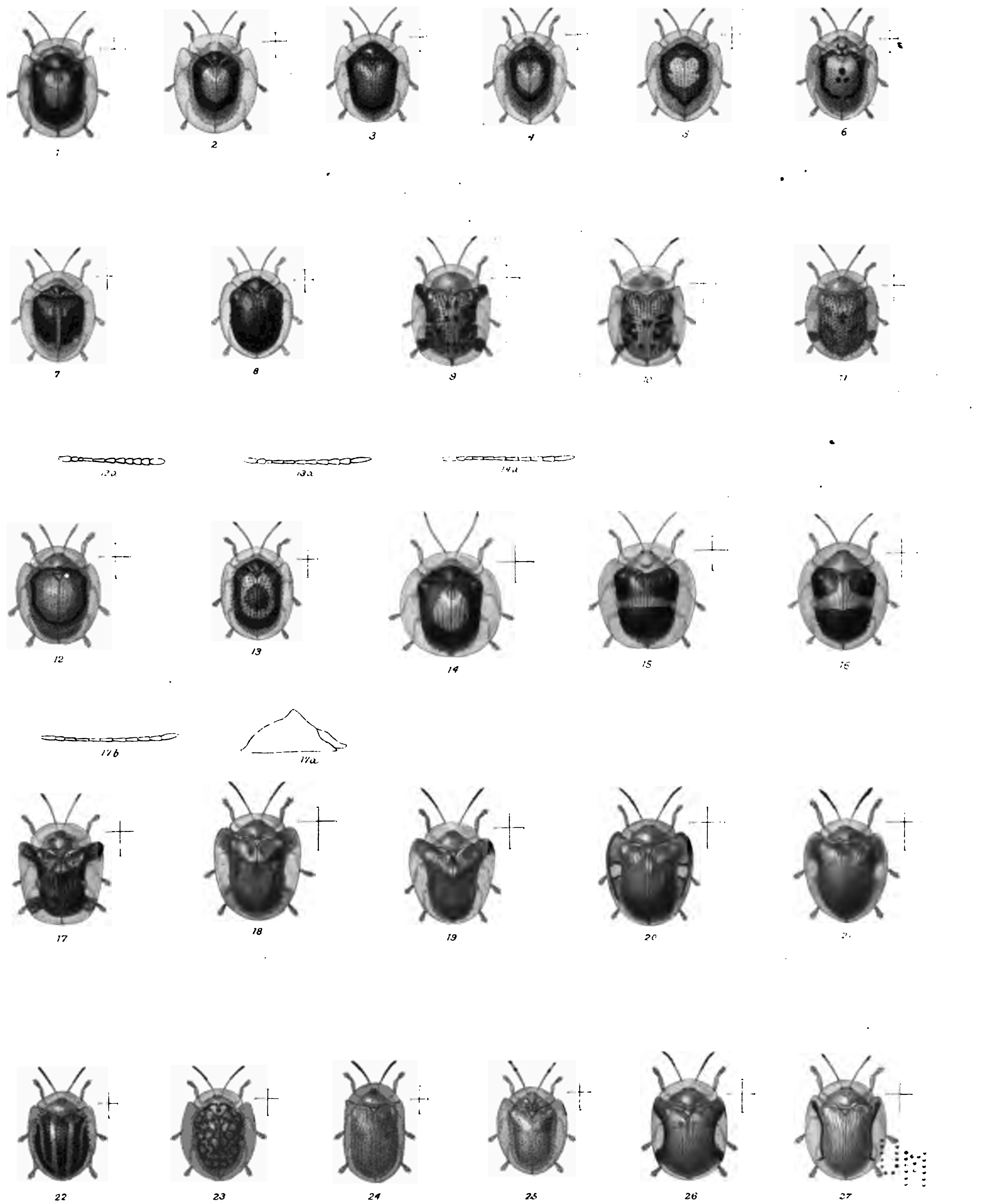


1, 1a ♀ COPTOCYCLA LEPROSA.
2, 2a ♀ » MARMORATA.
3 » ORBICULATA.
4, 4a ♀ » SORDIDA.
5, 5a, b ♂ » DORSOPLAGIATA.
6 » WESMAELI.
7 » » , *var*.
8 » » , *var*. PUERILIS.
9 » EPHIPPIATA.

10 COPTOCYCLA EPHIPPIATA, *var*.
11 » AMŒNA.
12 » OPULENTA.
13 » TRICOLORATA.
14 » ATALANTA.
15 ♀ » EXTENSA.
16 ♂ » ZETTERSTEDTI.
17 ♀ » INSUBIDA.
18 ♀ » SALLÆI.

19 ♀ COPTOCYCLA SIGNIFERA.
20 ♀ » » , *v*. TRABEATA.
21 ♂ » » , *v*. IMMUNDA.
22 ♀ » LECONTEI.
23, 23a ♂ » GIBBIFERA.
24 ♀ » » , *var*.
25 ♀ » CIRCULATA.
26, 26a ♀ » ISTHMICA.
27, 27a ♀ » ATROANNULUS.

W. Purkiss lith. — Hanhart imp.

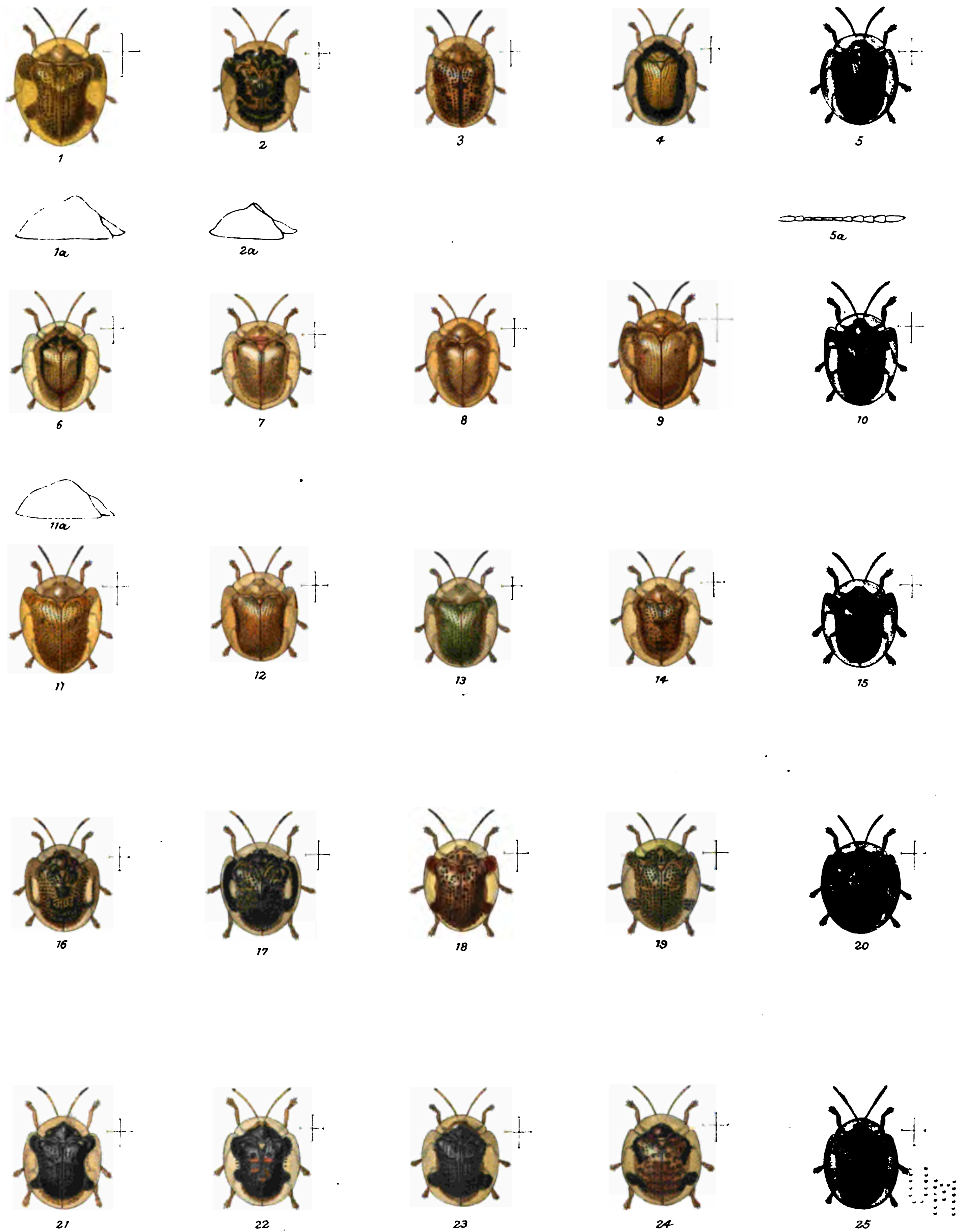


1 COPTOCYCLA CINGULATA	10 COPTOCYCLA DOHRNI.	19♂ COPTOCYCLA VENTRICOSA.
2 " AMBITA.	11 " DISTORTA.	20♀ " EGREGIA.
3 " BALTEATA.	12, 12a " BIANNULIFERA.	21♀ " " , var.
4 " IRAZUENSIS.	13, 13a " INCINCTA.	22 " PROPINQUA.
5 " PUELLA.	14, 14a, b " CIRCUMDUCTA.	23♀ " SUBIRRORATA.
6 " BONVOULOIRI	15♂ " AUROFASCIATA.	24♀ " BIVULNERATA
7 " DIOPHTHALMA.	16♀ " , v. FÅHRÆI.	25♀ " HÖGBERGI.
8 " SEMIATRATA	17, 17a, b, ♀ " TESTUDINARIA.	26 " EMARGINATA.
9 " CRUCIPENNIS	18♀ " TUBERCULATA.	27 " ANNEXA.

W. Purkiss lith.

Hanhart imp.

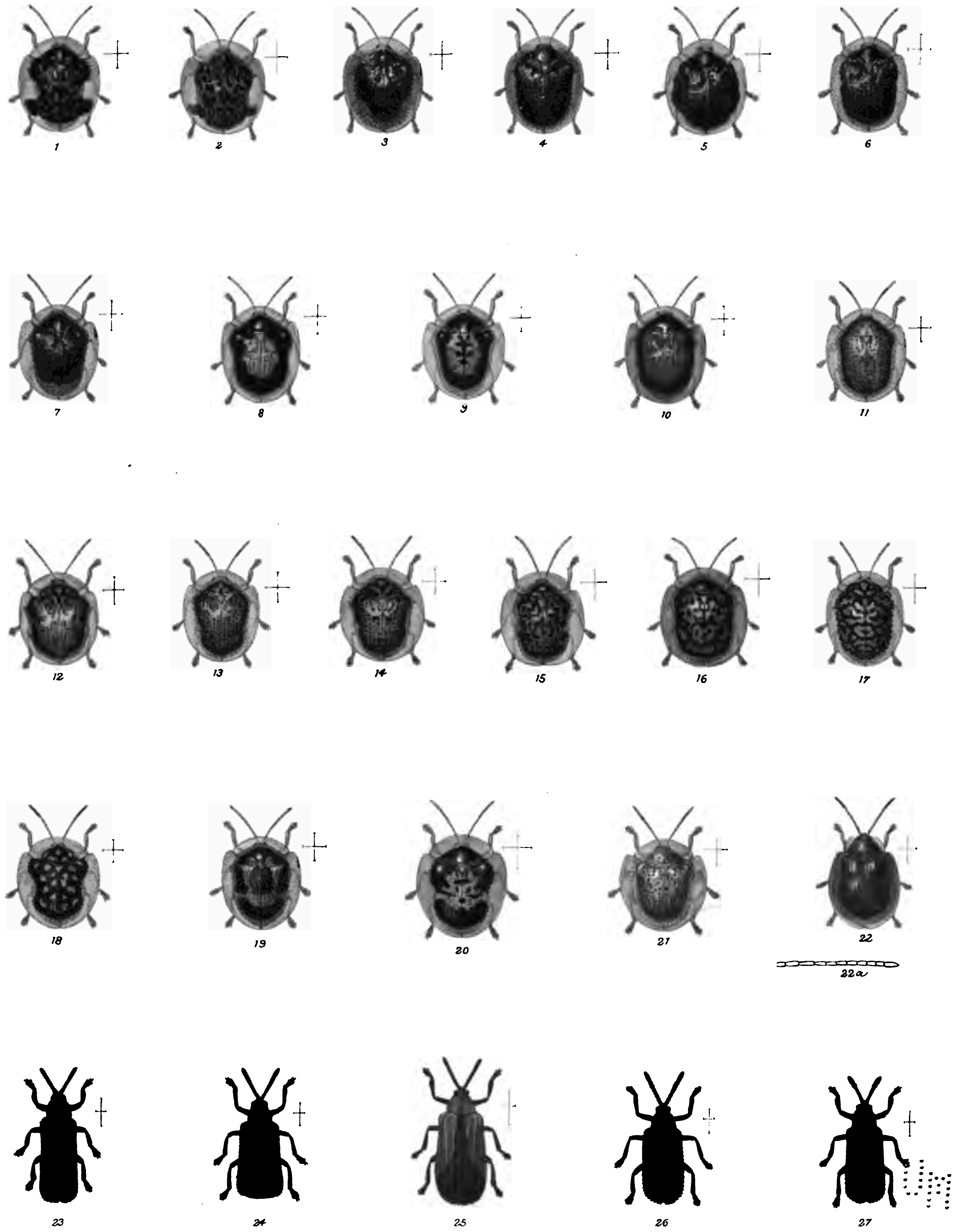
639.



1,1a	COPTOCYCLA	TUMIDA.	10	COPTOCYCLA	SCAPULARIS.	18 ♂	CTENOCHIRA	HECTICA.
2,2a	"	MACULICOLLIS.	11,11a	"	DUPLEX.	19	"	FRATERNA.
3 ♀	"	VILIS.	12 ♀	"	MARCULENTA.	20	"	" , var.
4	"	PROXIMA.	13	"	PROFLIGATA.	21	"	LUGUBRIS.
5,5a	"	EVANESCENS.	14 ♂	"	ERRATICA.	22 ♂	"	STÅLI.
6,7	"	VIRGULATA.	15 ♂	"	ANGULARIS.	23	"	INFANTULA.
8	"	DILUTA.	16	CTENOCHIRA	BIFENESTRATA, var.	24	"	" , var. SALEBRATA.
9	"	SINUATA.	17	"	" , var.	25	"	DISSIMILIS.

W. Purkiss lith. Hanhart imp.

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1 CTENOCHIRA PALMATA.
2 " " var. BILOBATA.
3♀ " RUBROCINCTA.
4♀ " " var. CARNIFEX.
5♂ " MELANOTA
6♀ " PLICATA.
7♂ " SAGULATA.
8♀ " VIVIDA.
9♂ " " var. NIGROCINCTA.
10♀ CTENOCHIRA VIVIDA, var. TABIDA.
11♀ " PUNICEA.
12 " PLEBEJA.
13♀ " CORONATA.
14♂ " " , var.
15♂ " HIEROGLYPHICA.
16♀ " " , var.
17♀ " CUMULATA.
18♂ " FLAVONOTATA.
19 CTENOCHIRA FAIRMAIREI, var.
20♂ " CRUX-FLAVA.
21♂ " ASPERSA.
22, 22a HIMATIDIUM SANGUINEUM.
23 CHALEPUS PARALLELUS.
24 " FLAVIPES.
25 " YUCATANUS.
26 UROPLATA SULCIFRONS.
27 " ANNULIPES.

W. Purkiss lith. Hanhart imp.

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